

Science Fiction World Builder Toolkit



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Sci-Fi World Builder Toolkit

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Introduction

Perhaps the greatest task a GM has is designing a setting for his players to explore. Some GMs like to borrow settings from other games, converting them to their favorite rules system and making alterations as they see necessary. Others borrow their worlds from books or films. Some prefer to create a unique setting using only their imagination.

For GMs who want to make their own universe, the task can seem daunting. Where should you start? How much detail should you include? What races should you allow? How much magic is there? What gods control the universe and how many are there? The list can seem endless.

Whatever method you use, or are thinking or using, there are key stages you need to follow to ensure you end up with a playable setting. This book aims to help you sort out the basics of your setting, allowing you to concentrate on the specifics.

And that's what this book is there to help with. By using the examples and essays, you can take the time out of world creation. A quick glance through the Sources of Conflict section may give you an instant idea, or send you down a road of possibilities you hadn't considered before.

Think of the table of contents as a checklist. Every step is important, in varying degrees, to setting creation. By starting at the beginning and working through, you'll have everything you need to help you through the design stage.

Let's be clear from the start, though—nothing in this book is an official ruling. Sure, we present examples, but don't expect every published Savage Setting to use the examples straight from this book. Official Savage Settings contain rules specific to one game world—if you choose to introduce those rules into your setting, then that's your choice.

The examples in this book are just that—examples. By all means feel free to use them, but you should also look on them to help you build your own variants. For instance, we give two methods of expanding the Arcane Background (Psionics) Edge and examples, but with a little imagination, and the guidance from this book, you should be able to make your own variants unique to your vision.

Some sections contain essays offering advice and general notes, others prompt you through the design stages by asking questions.

There is no right or wrong way to use this book—the ideas for your setting may not suit anyone else's, but that doesn't matter.

Think of your setting as a raw material. We've given you the tools you need, but only you can shape the resources into a viable end product. Go have fun!



Welcome, Earthling, to Savage Jack's guide to playing God. Playing God, you ask? Yep. This toolkit let's you play God on an awesome scale.

OK, now your ego has calmed down, let's look at what we have for you inside.

This toolkit is a guidebook on how to make a universe. Everything from choosing a style of sci-fi to creating worlds to expanding psionics.

There's also plenty of examples to help you along. None of the examples are specific to any setting, but they're designed to be as generic as possible. If you want to use them as printed, then take them, but you can also think of them as ideas and examples you can bend, twist, and break into your own cool rules.

How come? Because your sci-fi setting should be unique. We don't mind giving you a helping hand, but you still have to do some work yourself, that's why.

Whether you're just looking for a little guidance or need a helping hand from scratch, this book can help you.

Using this book won't produce an instant setting, but it'll give you all the building blocks you need to put one together quickly.

Einstein once said that god doesn't throw dice. Guess he was wrong!



Drawing Board

Every journey begins with a single step. In this case, the first step is to resist the urge to start writing up alien races or planets and go back to the very basics.

Think about the fundamental issues which will shape the very core of your setting—what style of sci-fi am I using, what level of tech exists, where is the campaign set, what is the hook to this setting, and what is going on?

Answering these questions now, before you start working on the finer details, will allow you to follow a logical path of world creation later.

Style of Sci-Fi

As with many genres in gaming, sci-fi has more than one sub-genre or style. The first step, and one which sets the tone for all your later work, is to pick the style best suited to your vision. Knowing this from the beginning allows you to remain consistent and to maintain the correct flavor.

It's important to note that style and technology level aren't necessarily bedmates. At first glance, a B-movie style game seems more likely to have lower tech gear than a sweeping space epic, but there's no reason it should. We'll take a brief look at technology levels next.

The styles listed below aren't the only ones imaginable, but they're the most common. Most sci-fi novels or films fit into one of these categories.

Hard Sci-Fi

Hard sci-fi aims for realism over the fantastic, although it usually acknowledges that in some cases

the physics behind it are shaky. One obvious area for discussion is space travel. Space travel in the early 21st century is, by gaming standards, very, very slow. If you're setting your game in Earth's solar system this doesn't present much of a problem—Earth to the Moon is only three days at current levels, and for longer journeys passengers can be put into cryogenic hibernation.

Where it gets slightly awkward is in FTL travel. Unless your campaign is set aboard an ark ship on a 1000 year journey to the next star, you need a believable way of getting between distant planetary systems quickly. Hard sci-fi FTL usually has some basis in physics, albeit theoretical physics. For instance, starships may fold space or use wormholes, but they're unlikely to accelerate to FTL speeds using conventional engines.

Starships may use antigravity systems to keep the crew on the floor (simply because it's easier), but also consider using rotating sections to produce artificial gravity. Characters in the latter type of setting are likely to need an Edge to allow them to operate effectively in low gravity.

Weapons and gear tend to stay firmly on the realistic side as well. Slugthrowers are likely to be common, unless you've set your game way in the future, with laser and other energy weapons being rarer. There's nothing to stop you using power armor or robots either, though with the latter they tend to be machines rather than almost sentient beings.

Weird Science is rare, unless you intend for it to be a branch of advanced science. Psionics may be acceptable, depending on how you present it. We'll take a look at psionics later.

Alien worlds tend to follow the laws of stellar physics as well. A large world has a higher gravity

than Earth, a world nearer its sun is likely to have a high surface temperature (although that depends on the star's classification), and few worlds are probably capable of supporting life without artificial habitats.

Hard sci-fi doesn't mean boring sci-fi, however. It just requires you to give some thought to the truly fantastic elements of the overall genre.

Pulp

Pulp sci-fi borders, in some respects, on fantasy. The laws of physics and evolution take a back seat in favor of high adventure and weirdness.

Technology levels vary immensely depending on the specific setting, but in most cases they use archaic names. Characters carry around ray guns instead of laser pistols, and fly rocket ships rather than pilot FTL starships. If rocket ships can go faster-than-light, they usually use some sort of strange method, such as black holes. No attempt is made to explain the physics behind technology, or the way the universe works.

Weird Science is often the only form of Arcane Background and it is ideally suited to this genre. From advanced ray guns (*bolt*) to atomic bazookas (*blast*) and rocket packs (*fly*) to matter relocators (*teleport*), virtually any gizmo your players can think of exists.

In many respects Weird Science is more akin to magic than technology, and gizmos may be as common as magic items in most fantasy games. One way to make your pulp game different is to allow Weird Scientists to use the magic item creation rules to build a wider variety of artifacts. (A detailed system can be found in the *Fantasy Gear Toolkit*.)

Psionics is often overlooked in many pulp games in favor of Weird Science. There's no reason it can't be used, however. Maybe it serves the same role as Magic or Miracles in a fantasy game.

Aliens may or may not exist, to suit your needs. If they exist, you need to decide if there are many races or just a few. Regardless of how many exist, you are not limited to what evolution has produced. Energy beings, gaseous beings, tentacled fish men, and even vegetable beings are all perfectly possible in a pulp setting. What matters more than science is good use of your imagination.

Planets in a pulp game can ignore the laws of physics without causing the inhabitants to question their existence. A small world, which scientifically would probably have a low gravity, might have the same gravity, or higher, than Earth without no explanation required. Worlds don't have to be spheres either—they could be broken fragments. Unless you're going for a truly weird setting, try to avoid square, triangular, or other geometrically shaped worlds though—suspension of disbelief only goes so far.

The surface of a world tends to have one dominant terrain type, which gives the world a general classification. For instance, a world covered in sandy deserts, no matter how close or far from its sun, is a desert world, and contains all the stereotypical images associated with deserts, such as sand dunes, oases, and the bleached bones of dead animals.

Heroes and villains in a pulp game sit firmly on one side of the moral fence and rarely wander in grey areas. Heroes are good and fight evil and oppression because that is the right thing to do. Likewise, villains are evil and lack conscience.

Not all pulp games need to be in the future, though. An actual 1930s world where Martians are invading (perhaps helping the Nazis, or being Hitler's secret agents) can still be pulp. Of course, it's also historical sci-fi, which we'll look at below.

Space Opera

Space opera is much like pulp, but everything is bigger. Starships are measured in miles rather than hundred of yards. Weapons don't just kill, they destroy entire worlds in a single shot. Adventures aren't limited to a single world, but span the entire galaxy. Villains don't plan on conquering a planet, but have their sights set on becoming ruler of the universe.

As with most non-hard science settings, physics is more a nuisance than a basis for technology. Laser pistols (often called blasters) are the main fair, but there is usually little in the way of heavy weapons. Armor may exist, but it's usually there so all the bad guys look the same rather than being an effective protective measure.

Like pulp games, space opera focuses more on the characters than their gear. Heroism and grit allow the heroes to succeed, rather than having them rely on weapons, electronic lockpicks, or starships.

B-Movie

B-movies fall into two categories—true B-movies, which involve giant ants and aliens threatening Earth, and old sci-fi films, where the laws of physics are quietly concealed. In some respects the category is similar to pulp, but it is worthy of its own sub-genre.

B-movie games set on Earth, or some other planet, usually have the characters as the inhabitants, living at a technology level akin to the 1950s up to the present day. The science fiction element tends to come from the antagonists.

Weird Science may be a branch of Earth science, but it can also be the study of alien artifacts. In a setting where aliens are threatening the world on a regular

Savage Settings

Three sci-fi Savage Settings are currently in the production queue—*Red Rising*, *Necropolis*, and *Slipstream*. What style of sci-fi are they?

Red Rising is a hard science setting with a touch of B-movie. Ships don't go faster-than-light and ballistic weapons are common, yet there are giant, mutated animals. The paranoia inherent in the setting is very reminiscent of the anti-Soviet paranoia of the 1950's as well.

Necropolis is a hard science with a strong touch of weird. FTL is no longer possible, weapons are ballistic rather than energy, and yet there are undead aliens from an alternate dimension and people can work Miracles.

Slipstream is set inside a black hole. Planets are fragments of worlds sucked into the pocket universe, alien races are plentiful and make no attempt to follow the laws of nature, and the gap between worlds contains breathable air. It falls firmly in the pulp sub-genre, although it has a touch of space opera as well.

basis, Weird Scientists seek to understand the weapons of their enemy, and turn them against them. If you're going for prehistoric monsters threatening Oriental cities or animals mutated by atomic experiments running amok in the US, then Weird Science may simply be advanced science.

Psionics tends to be used only by aliens, though it might exist among a few characters if you're going for a "B-movie in space" feel. Perhaps all starships have to have a psionist aboard as part of the crew.

FTL travel tends to go unexplained, even if the characters are traveling between the stars. Exactly how they get from world to world is less relevant than what awaits them when they land. Likewise, star-spanning B-movie characters use ray guns (as with pulp) rather than laser weapons. Robots tend to be clunky machines rather than artificial intelligence.

Cyberpunk

Cyberpunk came into existence in the 1980's and quickly became its own sub-genre. Cyberpunk games are usually set in the near-future. Corporations

have replaced national governments, wealth is split between the few haves and the many have-nots, and technology remains pretty much as we know it today. With one major exception—cyberware.

While not everyone in a cyberpunk game has cyberware, it is the core of the setting. Guidelines for cyberware were introduced in the *Sci-Fi Gear Toolkit* and make a good starting point for your own rules.

Cyberspace, a freakier and highly advanced version of the internet, is also a key area for cyberpunk games. Again, the *Sci-Fi Gear Toolkit* is a good place to start.

Traditional cyberpunk literature has no place for Weird Science, psionics, or indeed any other sort of Arcane background, but there's no reason you can't add a twist by allowing it.

Historical

Historical sci-fi may sound like a contradiction in terms, but it is possible to combine these elements. The most obvious is to take the Victorian Age of discovery and take it to an extreme. The works of H. G. Wells and Jules Verne are perfect examples of combining history (although this was the present to the authors) with science fiction. Some pulp stories of the 1930's also had Martian invaders. From our point of view this is historical science fiction.

In these style of stories, what was commonly believed about other planets becomes reality. Mars has canals, and therefore must have Martians who carved them, and Venus is a sweltering jungle world swathed in thick clouds (and therefore home to dinosaurs).

You don't have to stop at these fairly recent junctures, either. A game set in ancient Egypt where the gods were actually aliens and gifted humanity with advanced technology is still historical sci-fi. Imagine the legions of Rome armed with power armor, or the witch trials of the 16th and 17th centuries being a covert war against psionists.

The other way to use history in a sci-fi game is to allow time travel. Perhaps the characters are members of a secret government agency whose job is to protect the timeline against terrorists and despots seeking to alter the timeline to gain more power, or from madmen who want to recreate the modern world by altering history.

Weird

Weird isn't necessarily a complete sub-genre. While it is often better to add only a little weirdness to a setting, there's nothing to stop you going to the other extreme. What actually constitutes weirdness in a sci-fi setting?

Well, that's a tricky question. In general, it should be something not usually associated with standard

sci-fi settings. A game of intergalactic private eyes or merchants is sci-fi, but even FTL and alien races aren't weird as they're a core part of the genre. The same setting with living starships, alternate dimensions, undead, dwarves and elves, or even where the characters are all robots is weird.

Weirdness can also be more subtle. Having your setting take place aboard a single space station is not weird. However, if the space station was a floating cube in which secret masters treat the occupants as lab mice, forcing them into situations (i.e. adventures) to test their responses, you could call it weird. Adding fantasy elements, be it elves and dwarves or undead aliens from a dark dimension, is also weird.

Weirdness doesn't have to be ever-present either. The occasional encounter with energy beings makes a setting slightly weird, without labelling the entire campaign in that sub-genre.

Other Elements

These aren't the only elements you can use in sci-fi. Science fantasy might be literally that, with elves, dwarves, and orcs shifted into space. Replace conventional Magic with Weird Science and you've created a form of crossover setting.

Horror sci-fi might involve actual horror elements, like undead. It may also have the characters set against predatory aliens on deserted space stations or mining colonies, or involve Hell dimensions, where the inhabitants have broken free and are invading our own universe.

You could have sci-fi noir, with the characters playing private eyes in a seedy spaceport or space station. Comedy is another option, although maintaining a week-in week-out comedy setting can be difficult. Adding a light veneer of comedy, however, is much easier.

Technology Level

The following notes were originally presented in the Sci-Fi Gear Toolkit and are included here (with minor alterations) for completeness, as they have a bearing on designing your setting.

Sci-fi can cover everything from a near future game where aliens are invading the Earth to a universe-spanning game of galactic empires and rebellious allegiances.

Some settings have nothing more than experimental laser weapons or advanced combat rifles, whereas others have personal disintegrators, teleport belts, huge starships capable of destroying worlds, and armored mechs. And that doesn't even begin to cover

the in-between stuff. What's common in one game may be, at best, Weird Science, in another.

To help differentiate what's common to your setting and what's advanced technology, we're going to use a Tech Index (TI). This isn't a new rule—it's just a useful convention to give you a starting point when designing the equipment in your setting.

There are four levels of TI, ranging from the mundane of modern Earth to true superscience. There's no reason why you can't mix and match these in a single setting, but to help you design your setting you should pick a default level.

There's no right or wrong TI for your setting. If you want mechs wandering around a TI 0 setting as common vehicles, then that's fine. As we've said above, the TI is just a general guideline to help you build your worlds.

If you have Weird Science in your game, you might want to allow characters to build devices one or more TI higher, perhaps representing experimental or reverse engineered alien technology.

TI 0

This is Earth as we know it today, though with maybe a few minor enhancements. The vast majority of gear comes straight out of the core rules with little or no modification.

You might wish to allow experimental laser weapons or interplanetary starships (placing the setting at the dawn of mankind's exploration of the stars), but ships should be relatively slow, maybe even require hibernation pods for the crew, and certainly shouldn't sport huge weapon arrays.

At best, there may be an antimissile suite to destroy small asteroids.

TI 1

At this level personal energy weapons are more common fare, though they are usually costly compared to ballistic weapons. Cyberware becomes available at this TI.

Starships are faster, taking only months or weeks to cross vast (but not unlimited) distances, and carry deadly weapons.

Items like power armor, portable plasma weapons, mechs, and grav lift engines are probably experimental (or Weird Science) and used only by elite military units. Teleporters, invisibility cloaks, and personal energy shields remain in the realm of Weird Science.

TI 2

Unless you're after a superscience setting, TI 2 is probably the highest level a setting will reach.

Characters have access to powerful weapons and armor, though items like disintegrators and energy shields are usually Weird Science or so big they are only used on starships. Ballistic weapons are all but unheard of at this technological level.

Starships can travel between planets in only a few days and can carry an awesome array of weapons (though not usually enough to destroy a planet).

TI 3

At this TI anything goes—personal disintegrators, teleport belts, and energy shields are common gear.

Starships cover vast distances in the blink of an eye, and are armed with weapons capable of shattering worlds in a single blast. Ships may even have been supplanted by vast teleport gates, capable of sending characters from world to world. In this setting, ships would be used mainly for system defenses.

Location

Every sci-fi setting needs a location. The obvious choices are one planet (not necessarily Earth), a space station or vast starship, a solar system, and the entire galaxy (or at least some part of it).

Don't worry too much about the specifics at this stage. All you need is an idea of where your setting is going to take place. We look at building worlds, space stations, and planetary empires later.

Hook

Every setting needs a hook, something you can use to lure players to your gaming table. So what makes a good hook? Well, anything that makes the setting attractive. A sci-fi setting with lasers and FTL starships is the most traditional hook, but it's also the most boring, as 90% of sci-fi campaigns involve these.

Think about what makes your setting different. Simply having all the characters play aliens or robots is a hook. A universe or world where biotechnology is the norm is also a hook. You could have biotech weapons, living starships and vehicles, and even biotech cyberware as common items. Even setting it aboard an explorer ship, mapping new worlds and meeting strange alien races serves as a hook.

While the hook can be seen as the dressing on a salad, it can also form the core of your Plot Point.

Perhaps the characters are all survivors of a deadly plague that was the prelude to an alien invasion. The hook is they're fighting to drive the aliens off their world and rebuild the shattered fragments of

humanity, not all of whom want to build the world in the way the characters imagine.

Already the hook requires answers to fundamental questions your players are going to ask. Why did the aliens invade? What tech level do they possess? How do we rebuild an entire world? What forces oppose us? The simple hook is already beginning to lead you toward the development of the Plot Point.

When designing a hook, ask yourself one important question—if a GM gave me the hook, would it make me want to play in his game. If the answer is no, then you need to reevaluate your hook.

Plot Point

Plot Points are the *Savage Worlds'* way of scripting a campaign. They have a beginning, a middle, and an end. They turn the actual facts about the setting into the backdrop for an epic story.

Sure, you can create a sci-fi setting with no Plot Point. The characters can simply explore the setting you have created, perhaps conquering worlds, exploring now-deserted worlds that once housed an advanced civilization, or just trading to make a living. There's still likely to be plenty of adventure possibilities, but a good Plot Point keeps the characters motivated, gives them a defined goal, and still allows them to explore other aspects of your creation.

Remember, at this stage all you need is a basic idea—expanding it into a background story comes next.

You should also remember that completing a Plot Point doesn't mean the game is over. Completing one may lead to another. For instance, the characters might stop an intergalactic war started by vicious aliens, only to discover in the final Plot Point that an even greater race was pulling the strings or that their own government started the war in order to further control the population.

Here's a few ideas to get you started.

Plot Point Ideas

- The accidental triggering of an ancient artifact is destroying a major world and endangering billions of lives. The characters must find a way to switch off the machine before it consumes the world.

- All the stars in the universe are burning up for reasons unknown. Unless a "cure" is found, the universe will end.

- An ancient and powerful alien race has decided to try again to conquer the galaxy. Discovering what the creatures are and how to stop them is the core of the Plot Point.

- An evil tyrant with a starship carrying a weapon capable of destroying worlds is trying to form a vast empire, vaporizing all planets that oppose him.
- A corporation or government is conducting illegal experiments to build a race of super soldiers, advanced psionics, or gain control of the masses through a powerful mind-altering device.
- Humanity is at war with aliens. While they may form the basis of a military game, there is plenty of scope outside the armed forces, rescuing stranded colonists, waging a guerilla war, or trying to find a peaceful solution.
- A new religion is sweeping the galaxy. People in high places might become converts, giving the leaders of the faith powerful allies. Of course, for it to be an interesting Plot Point, the leaders of the faith are up to no good. Maybe they seek to enslave other races, or perhaps they are using the rank-and-file converts as food or components in biotechnology.
- A virulent plague, either natural or engineered by aliens, is sweeping the galaxy. The race is on to find a cure before humanity is wiped out.
- A powerful cabal of psionics plots to gain control of the government and make citizens without psionics their slaves.
- The characters discover their government has secretly sold the human race out to aliens.
- Beings from a Hell dimension have entered the universe and are working behind the scenes to lead the major races to war against each other, allowing them to conquer the survivors later.

Background

Okay, so you know the type of sci-fi you want to use, you have an idea of the scope of the setting, and you have an interesting hook and Plot Point idea. Now it's time to turn the idea into a background story—the reason why the Plot Point exists in the first place.

The background story is the first part of your campaign map. Not in the physical sense of a map of the universe, but as in a map of the story arc—the overall goal of the characters.

The background fills in the whos, whys, and hows of the story. You don't need to know all the details at once, but you should have a good feel for how things got to their present state.

If aliens are conquering worlds, you need to know who they are. What do they look like? What is their motivation for going to war? Is there a hidden agenda? Sure, a war for the sake of gaining slaves or resources works, but having them declare war to wipe out psionics because of some ancient prophecy that a psionics would lead to the downfall of their race adds a whole level for the characters to discover.

The background should contain all the details of events leading up to the start of the campaign and possibly into the story arc itself (see below). How much detail you want at this stage is up to you, but the more you know, the easier it is to work through other parts of this book.

How quickly are the aliens conquering worlds? When will they reach the characters' homeworlds? Do any other races join them, and if so what triggers this event?

You can use parts of the background to give to your players. If you want, you can create a handout for the players with all the pertinent information their characters would know. If the goal of the Plot Point is going to be obvious (who could miss the news reports of conquering aliens), add some historical flavor or foreshadow events to come.

Forward Planning

For now, you only need a vague idea of where the campaign is leading. Why? Because it can help determine other aspects of the setting design process.

If you want the characters to travel to the ruins of an ancient civilization on the rim of known space to uncover a superweapon capable of ending an intergalactic war, make sure you add a suitable place to your galactic map.

Knowing how many major races exist will allow you to define borders and develop the races as player character races. If your aliens use a different type of psionics, get an idea now of how it'll work.

We present guidelines later you can use to flesh out the specifics, but thinking about it now will give you a head start.

Consistency

Now you've developed the background to your world, you're ready to start adding specific details. Use what you've already created as a measuring stick to help you stay focused.

If you've settled on a low tech index, then don't suddenly allow laser weapons to dominate the game. If you have just a few star systems but also allow FTL drives, make sure there's a reason why the characters can't head off into uncharted space to map new worlds.

If psionics is going to play a key role in your campaign, take a look at how you can tweak it to produce a wide variety of psionics types. We've got a whole section on psionics starting on page 48 to help you out.

Setting Basics

Now you've got an idea for the type of sci-fi game you want to run and some idea of the story you want to tell, think about the basics of the setting. Typically this covers the sorts of character archetypes you envision in the game, gear, and the general scope of the game. Decide this now, and it makes actually writing up the Plot Points much easier. Let's have a look at each major decision you'll have to make in turn.

How Big?

Does your setting encompass a single world (or space station), a solar systems, a few worlds light-years apart, a dozen worlds, or a thousand worlds? At the end of the day, it doesn't really affect how much work you have to do to create your setting. The more worlds you have, the broader the brushstrokes you paint, but there's more of them. The smaller the scope, the finer and more in-depth the details you have to paint.

For instance, if you have over 100 worlds, you don't need to start drawing maps for each one, calculating the exact seasonal variations, and such like. Create a basic set of notes on the gravity, atmosphere, places of interest, and natives, and you're done. The next chapter should prove of great benefit if you have multiple worlds.

If you have a single world, you'll need to think about the weather (if only in general terms), the location of continents and islands, the geographic makeup of the world, the location of cities, travel networks, and such like. Don't go mad, but put in enough detail to answer all the basic questions your players may ask. If it's going to be the characters' only home, they'll want details. Even if you're using

a futuristic Earth, you'll need to decide what changes exist and why.

Basic Profile

In addition to the generic flavor of sci-fi, think about what elements you are going to use. Are you going to have a strictly cyberpunk game, or are there also starships, mechs, power armor, and psionics? Does your mech game focus purely on mech warfare, or are there vehicles and starships to contend with? How does psionics or Weird Science fit into mech combat?

A setting containing everything may sound like fun, but there is a real danger that what could be a core element becomes just another piece of gear. It can also become messy, with one character running a mech, another being a cyberspace hacker, another a starship pilot, and the last one a psionist with a hatred of technology. Planning adventures to please them all isn't going to be easy.

Necropolis, for instance, uses vehicles and Miracles. No mechs, no starships, no psionics, no power armor, no Weird Science, no cybertech. *Red Rising* has a strong focus on starships and psionics, but has no mechs, or cyberspace element.

Limiting yourself to just one or two aspects of technology doesn't mean your setting has to be boring. It's what you do with the technology in the confines of the setting that matters.

Character Archetypes

Although players may feel it is their right to make any character they want, your setting may require

certain limitations. A setting called Psi Wars, which involves groups of psionics locked in a bitter war, isn't going to work if no one plays a psionist.

The best way to handle this case is to give characters the Arcane Background (Psionics) Edge free. First, it's vital to your setting, so it should be taken by all characters. Second, since every character has it, it doesn't alter the game balance one bit.

Another way to limit characters is to have them belong to a single organization. The *Necropolis* setting forces all characters to belong to one organization—the Church of the Third Reformation. It's also a military setting, so we have two proverbial birds to kill with a single stone.

Although all characters belong to the Church, they can be either a knight or chaplain of one of five holy orders. Every character has to pick an order, which in turn gives them special abilities for free. Although all characters are human, having special abilities tied to their order gives them a choice to make, exactly if they had to pick an alien race. Chaplains all receive the same special abilities, regardless of their order.

In addition, knight characters can pick a military specialty, such as Infantry, Vehicle Crew, or Infantry Support. This choice gives them a specific starting gear package, but requires they meet certain trait minimums.

So, although all *Necropolis* characters must be human and must belong to the same, single organization, players still have a choice over the sort of character they are going to play.

If you are planning a game where all the characters are mech pilots, you could create factions or academies. These should give the characters special abilities, each balanced so no one gets a better deal.

For example, the Red Dragon Academy may specialize in heavy mechs. Characters belonging to the academy might get a +2 bonus to Driving rolls in a heavy mech. The Earth Military Academy, on the other hand, might produce pilots whose gunnery skills excel in one area. For instance, maybe they reduce the penalty for Cover by one point because they train heavily in this area.

Try to make each one different enough that it does present a choice. If the players take several minutes reading and reading the abilities before they make their choice, then you've probably done a good job.

Aliens

Whether or not you use aliens in your game, as player races or NPCs, depends on the needs of your setting. A gritty cyberpunk game works very well with just humans. A space pulp game might have all the aliens as being essentially human but with a few small tweaks (such as having wings, or claws). A

game spanning hundreds of worlds may have dozens of races, or it might have a single "enemy race." Of course, your universe may also be packed with hundreds of races.

If you're going to allow players to take aliens characters, you'll need to decide how many races there are and what abilities they have. One way is to create a few races, five or six is a good number, and detail their special abilities. Alternately, you might want to allow players to play anything they can think of. In this case, you'll need to create some system for allowing players to create varied but balanced aliens.

Whatever style you prefer, there's guidelines to creating new races on p.28.

Gear

Okay, so you've picked a Tech Index for your setting, but what gear are you going to allow? Let's look at each major category in turn.

Weapons

If you want energy weapons, do you just have the one type, or do you allow multiple types? For instance, do you just have laser weapons, or do you allow particle beams, antimatter rifles, plasma cannons, and so on? Are slugthrowers still available in this setting?

Savage Worlds doesn't require huge weapons lists to be a fun game. Whatever weapons you pick, stick to a single type of pistol, SMG, rifle, and machinegun for each weapon type. You don't need four types of laser pistol, six rifles, and three machineguns. Slugthrowers may come in one or two different calibers, but don't bother creating ten rifles, all with similar stats. It really won't add much to your game.

Armor

Armor, if available, should be limited to just a few types unless it is central to your game. If you have spaceships, don't forget to include spacesuits under armor. You can either use the basic armor from *Savage Worlds*, or you can create your own.

A setting where all the characters are soldiers in power armor, for instance, might use just the basic power armor rules. To give the characters more choice, and make the use of power armor more central to your game, you could use the guidelines in the *Sci-Fi Gear Toolkit* to allow characters to customize their armor based on their role in the squad. Perhaps all characters have a medium suit to customize, or you could give them a price limit to work to so they can design a suit specifically suited to their role.



Ground Vehicles

A game set in a futuristic Earth, say a cyberpunk game, is likely to use ground vehicles very similar to what we have today. Sure, designs change and new gizmos appear, but don't reinvent the wheel. Rather than spend ages creating a batch of new vehicles, just take the modern examples from the rules and change a few stats. Maybe sports cars go faster, or stealth paint is readily available on corporate vehicles.

A futuristic military setting, however, requires a different approach. For this style of game, it really is a good idea to create a batch of vehicles. In general, you should have at least one type of APC, some sort of jeep (or its equivalent), and several types of tank (usually grouped in light, medium, and heavy categories).

You might even want to create different vehicles for the enemy as well. Okay, so the players won't ever get to drive them, but they'll be facing them and, in this case, having different vehicles to their own adds to the campaign flavor.

The same applies to using mechs. If they're central to your game, make sure you've got a big choice. Not only can they be used by allies, but enemy forces should have them as well. If you've only got five basic designs, the players will likely get bored of facing the same old types time after time.

Spaceships

Exactly the same guidelines apply to starships as well, whether or not the game is a military one. A setting based in a single solar system may only have shuttles and fighters, each being a variation on the

same theme. In this instance, it's advisable to create a basic frame and then allow add-on packages to customize them. Create six packages, and you could roll a 6 whenever a starship is encountered to produce a "random" starship.

If you have a vast space empire for your players to explore, create a standard fighter, a standard small merchant ship, a standard destroyer, pirate ship, liner, and such like. You don't need multiple types for each class (unless you like to design vehicles), but there should be one starship for each main role you can think of. If you have an alien race serving as an enemy force, give them a few unique ships—you can concentrate on just a few types, rather than producing dozens.

Customization by Players

In a game where the characters are all starfighter or mech pilots, you might want to allow them to customize their vehicles. The *Sci-Fi Gear Toolkit* provides a good starting point for all three types of vehicle. Just make sure you set some sort of limit, be it weight or price.

Yes, giving the characters control over their vehicle can make it slightly difficult for you to plan in advance, but once they have created their vehicles you'll have a better idea of the sorts of foes to throw against them.

Special Gear

Special gear is equipment specific to your setting aside from weapons, armor, and vehicles. The obvious type of setting requiring this sort of gear is cyberpunk, where characters may have cyberware or special computers for exploring cyberspace.

Since it's at the core of your setting, make sure there are plenty of choices. In general, cyberware should be a fixed list, whereas hacking computers should be customizable. Of course, there's nothing to stop you having totally customizable cyberware or fixed computers.

Other Gear

Other gear is a general term for everything else players can buy. Think about the sort of stuff players might want, then decide if it has a place in your game. For instance, most sci-fi games have some sort of mobile communications equipment. A cyberpunk setting might use mobile phones, whereas a pulp game may have a radiophone and a military game a commlink.

Unless there's a good reason, just stick to one type of each object. One radio, one type of lockpicking kit,

one type of rope, one type of whatever is all you need to make a good setting.

Setting Rules

Take a look at any *Savage Setting*, and you'll see it has a Setting Rules chapter. Setting rules are rules elements specific to the type of setting. *Red Rising* has rules for starships, whereas *Necropolis* focuses on military matters, such as artillery support. *Slipstream* focuses heavily on the pulp style of gaming central to the setting and has guidelines for breathing in space, languages, pulp spaceship combat, and such like. Your setting should also have specific setting rules.

For instance, a cyberpunk game should have rules on cyberspace, as well as acquiring and using cyberware. If the gear can be customized, then customization should be a setting rule. A psi wars game should have a section devoted to Psionics, including new powers, and maybe even new Edges or variations of the standard Arcane Background (Psionics) Edge.

A game involving starships should have rules for operating them. This might include detailing rolls for calculating hyperspace trips, navigating around gravitational distortions, space combat and zero-g rules, and such like.

If you're planning a military game, you might want rules for artillery and air support. In this case, you could lift them from *Tour of Darkness* and make what adjustments you need to fit into your setting. You may also need guidelines for using grav lift vehicles, the effects of unusual weather, and such like.

A mech combat game could use the basic Vehicle rules from *Savage Worlds* with new maneuvers, but you could also have a setting rule saying, "Mech combat works like regular character combat, with the following changes." Then list the changes. In the case of mechs, which often have multiple guns, it might include firing linked weapons of the same sort, allowing more than one weapon to be fired as a multi-action penalty, rules for ejecting from a destroyed mech, repair times and costs, and so on.

Edges & Hindrances

Indeed, the quickest way to add flavor is to create new Hindrances and Edges. Don't try to create new Edges and Hindrances usable in any setting—focus on what would make your setting more atmospheric. If you don't have any starships, don't bother creating Edges related to space travel.

As an example, *Necropolis* has a Penitent Hindrance. It allows the character to start as a member of a penal unit of disgraced knights. While it fits the religious theme of setting, it doesn't serve much use in a

Religion & Magic

Sci-fi, by its very definition, is about science. So should you have Magic or Miracles in your setting? As always, it depends on your setting. A gritty cyberpunk game may have no Arcane Backgrounds at all, whereas a pulp game might just use Weird Science. A psi wars game is probably going to concentrate purely on psionics.

There's nothing inherently wrong with using magic or miracles in a sci-fi game, however, so long as it fits the setting. *Necropolis* may be a sci-fi horror setting, but it also has a religious organization at the core. As such, characters can use the Arcane Background (Miracles) Edge. It even has Weird Science and Magic, though these aren't available to player characters.

You can even change the names of Arcane Edges to mimic each other. Perhaps Weird Science is used by an advanced society or group and is called Science Magic because it produces effects far greater than conventional science.

cyberpunk or pulp game. Conversely, a Hindrance like Zero-G Sickness won't add anything to the setting as there are no spaceships.

We look at using Professional Edges to add flavor on p.45. For generic Edges and Hindrances, check out the guidelines in the *Savage Worlds* rulebook.

Player Background

Although we've covered this ground before, we'll say it again—create a background story for your setting and give it, or at least parts, to your players as a handout.

Ideally it should be short, perhaps just a single page, but contain all the pertinent facts the characters would know about the universe they live in. You could even write it as a timeline of important events along with some flavor text.

Why? First, it gives the players the basic facts of what is happening and why. Second, it gives them some idea of what is going to happen. Third, it keeps the setting consistent so both sides know what's taking place.

World Design

Unless your campaign is set on Earth or within our own solar system, it's extremely likely you'll need to design one or more alien worlds. This chapter looks at making worlds.

Design Strategy

Before you grab a piece of paper and start drawing galactic maps, give some attention to your design strategy.

Top-Down

Despite requiring the most work, a top-down strategy is the one preferred by most GMs. In essence, you start big and slowly add the fine details.

A top-down design starts with the big picture—a map of the known galaxy with the location of at least the major planets. To this are added smaller planets, boundaries, space stations, and places of interest. While doing this, you can also decide on the races and governments of the realms, working out in detail how they fit into the campaign story.

You may even wish to start planning important organizations, trade routes, key individuals, and so on. We'll be looking at these in detail later, but if you want to know more before you pick up a pencil, then skip ahead.

The advantage to this method is that you know where everything is at the start of the game. If the heroes decide to travel to a new world, you've already mapped it out and detailed the important facts.

The disadvantage is one of time—creating an entire galaxy, or even just a single collection of worlds, can be a time-consuming process.

Bottom-Up

Bottom-up design starts small, focusing only on the area of the galaxy in which the players begin. Usually this is a single solar system, but you may wish to start with a single world.

When you're ready, move onto the neighboring star systems, expanding the map as the characters begin to explore their universe.

This method has the advantage of not requiring much time. Designing a single solar system and placing a few key settlements and adventure areas is much quicker than drawing everything of interest in the universe.

However, limiting the players to one area may be constraining to their wanderlust. Unless there's a good reason to stay in one place, such as a strong series of Plot Points or them not being able to afford passage off-world, the characters are likely to want to know what lies beyond.

You'll also need to keep detailed notes during play of any other planets or star systems places you mention during the early days of the campaign. If an alien refugee tells the characters his homeworld is 100 light-years away, make sure you note this so you can add them later.

World Making

Whether you're using just a single solar system or an entire galaxy, you're going to need to know something about the planets.

The system presented here is a Fast! Furious! Fun! way of quickly generating a planet. Even if the players

ignore your adventure hook and head off into the blue yonder, you can roll up a world in just a few moments.

The tables are presented first, with descriptions given later by section. These tables produce a quick world, not necessarily a totally believable one. If you want to produce tables to work out star types, orbital distances, albedo factors, and such like, feel free to create your own. In all likelihood, the players won't be interested in such things unless you've got an astronomy student sat at your table. Remember, *Savage Worlds* is about the story and the characters—not stellar mathematics.

You'll also notice that these tables tend to produce worlds on which humans can survive. These are, after all, the worlds of most interest to the characters.

You can also use the design notes that follow these tables to create your own worlds without rolling randomly. The basics are here—how you use them is your choice.

Table 1: Gravity

In most settings, a higher gravity world will be larger than Earth and a low gravity world smaller. In weirder type sci-fi settings this might not necessarily be the case.

Roll a d20 to determine the general gravity category. The equation in parentheses determines the specific gravity expressed as unit of 1g, or Earth's gravity.

d20	Result
1-2	Zero gravity (0.1g x 1d4)
3-6	Low Gravity (0.4g + (0.1 x 1d4))
7-15	Normal Gravity (0.8g + (0.1+1d4))
16-20	High Gravity (1.2g + (0.1 x 1d8))

Table 2: Dominant Terrain

As any reader knows, Earth is made up of a multitude of terrain types. However, for convenience, alien worlds for a dominant terrain type, which in turn sets the average surface temperature.

Earth's average temperature is around 60 degrees. Of course, some areas are far hotter and others far colder. The average temperature is for the temperate zones. On the equator treat the temperature as 60 degrees warmer, and at the poles as 60 degrees colder.

Again, this is far from realistic, but it gives you a good idea of the temperature should the characters travel there. You can use these examples as guidelines for creating other terrain types. If you want a volcanic world covered in ash and lava streams, treat the temperature as slightly hotter than a desert, say 100 degrees.

d20	Result
1-3	Arctic (-22 degrees)
4-5	Temperate Plains (50 degrees)
6-8	Temperate Forests (60 degrees)
9-11	Jungle (70 degrees)
12-14	Marsh/Swamp (65 degrees)
15-17	Desert (85 degrees)
18-20	Water (50 degrees)

Table 3: Atmosphere

The atmosphere of a world determines how easy it is to breathe and also modifies the temperature. Add the temperature (listed in parentheses) to the base temperature found above for the final temperature.

Normal atmospheres, those like our own world's, give less temperature variation than other types.

d20	Result
1-2	None (-100 + (-25 x 1d10) degrees)
3-6	Thin (-5 x 1d20 degrees)
7-14	Normal (-10 + 1d20 degrees)
15-18	Dense (+5 x 1d20 degrees)
19-20	Exotic (Roll a d6. On a 1-2 treat the atmosphere as Thin; a 3-4 as Normal, and a 5-6 as Dense)

Table 4: Population

The exact census of a world is fairly irrelevant to most sci-fi settings. As such, population is listed only as a descriptor. In this way, you can alter the exact population by the size of the world.

For example, a low gravity world might be half the size of Earth. If it is listed as densely populated crowded, it might have around 4 billion people, or just under that of Earth.

d20	Result
1	Extremely sparsely populated
2	Very sparsely populated
3-5	Sparsely populated
6-8	Below average
9-12	Average
13-15	Above average
16-18	Densely populated
19	Very densely populated
20	Extremely densely populated

Table 5: Government

Earth has several hundred countries and many different types of government. Of course, detailing all these would take some time.

For convenience, all worlds are given a predominant government type. It may be that a single government

runs the entire planet, or that all nations follow the same basic governmental type.

d20	Result
1	Anarchy
2-3	Company/Corporate
4-5	Bureaucracy
6-7	Republic
8	Autocracy
9-10	Confederacy
11-12	Oligarchy
13-14	Monarchy
15	Theocracy
16	Psioocracy
17-18	Dictatorship
19	Feudal
20	Meritocracy

Table 6: Law

The law type of a world should be used as a general indicator as to how much the government interferes in a citizen's life, how efficient the police are, and how strict the punishments.

d20	Result
1-2	Nonexistent
3-6	Lenient
7-15	Average
16-18	Strict
19-20	Totalitarian

Table 7: Spaceport

Spaceports are places where starships can be built, repaired, and refuelled. The number in parenthesis is a modifier to Table 8.

d20	Result
1-2	None (-10)
3-7	Grade 1 (+2)
8-12	Grade 2 (+4)
13-18	Grade 3 (+6)
19-20	Grade 4 (+8)

Table 8: Technology

The technology possessed by a world is an indicator of how much the average citizen has to technology. As with Earth, some people are still little more advanced than the Stone Age, where as a few small research centers have access to technology far in advance of what is available to the heroes.

Roll on the table and modify the result by the spaceport result. this stops high-tech facilities routinely popping up on Stone Age worlds.

d20	Result
1	Stone Age
2-3	Middle Ages Earth equivalent
4-5	Renaissance Earth
6-8	21st century Earth
9-11	Slightly below average for the setting
12-16	Average for the setting
17-18	Slightly above average for the setting
19	One tech index higher
20	Two tech indices higher

Notes

Now you've got the results from the planet generator, let's take a look at what the entries mean. Each section is numbered as per the corresponding table above. As with everything else in this book, any rules should be treated as guidelines, which you can use, alter, or ignore as you see fit.

1. Gravity

Gravity is listed as zero, low, normal, or high. Each of these environments presents its own specific problems to those not born on a world with similar gravity. However, because we humans are used to our gravity, we won't go into details about normal gravity effects.

You might wish to allow characters to be born on worlds other than those with normal gravity. Coming from a different gravity to Earth has a noticeable effect on physique, as discussed in the relevant section. When switching between different gravities, these differences become more readily apparent. Check out the Gravity Effects Table on page 17 for what happens to Strength and Agility when switching between gravities.

These guidelines are not designed to simulate real-life in a different gravity. Aside from the obvious difficulties, there are long-term health implications. The guidelines below are a playable set of game mechanics and should be treated with a pinch of salt.

If you want more complexity, you can modify trait rolls and Pace according to the character homeworld versus his current gravity. In most cases, such extra bookkeeping adds nothing to the game and only slows it down. For obvious reasons, characters born in the environment do not suffer the penalties listed.

Zero-G

Technically zero-g environments should be called micro-gravity environments, since there is always some gravity acting on a body. Semantics aside,

creatures native to zero-g worlds have considerably less body mass than those of Earth gravity, weaker bones, and greatly reduced muscle strength. In game terms, they have -2 Toughness.

Movement in zero-g is tricky for non-natives, as any force causes the character to spin in three dimensions, quickly losing any sense of up or down and, in some cases, causing zero-g sickness. Pace is reduced by half (round down), to a minimum of 1.

All physical actions have a -2 penalty. If the character rolls a 1 on his trait die, regardless of Wild Die, he has lost control of his body and begins to tumble in three dimensions. Treat the character as Shaken, but he must make an Agility roll to recover rather than Spirit.

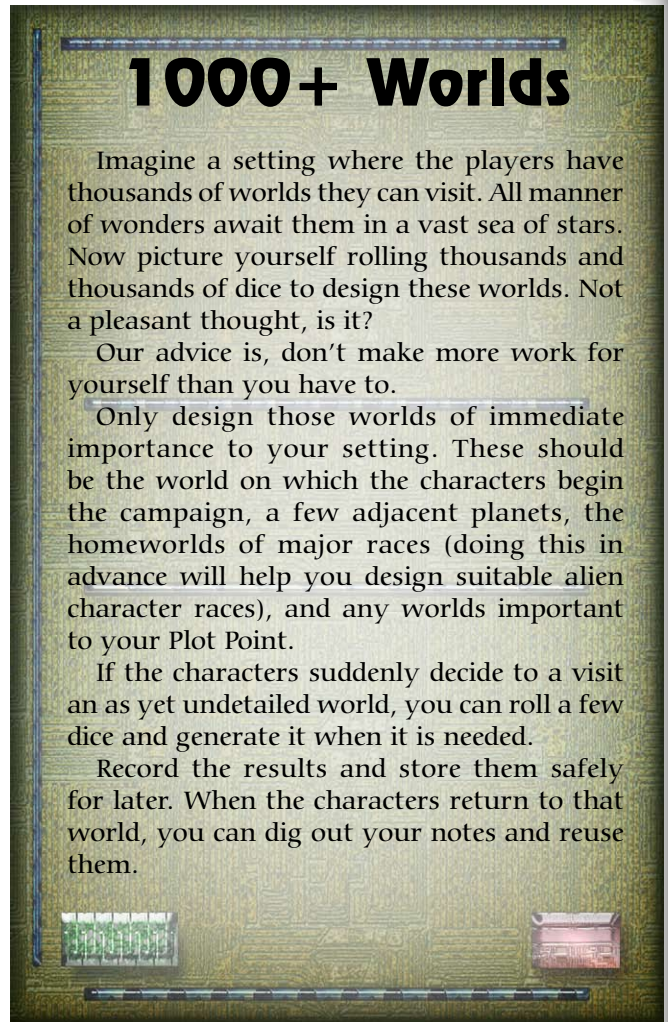
Using conventional ballistic weapons in zero-g can cause severe problems due to the recoil. The same applies to melee weapons, as the swing of a blow can cause the character to begin spinning like a top. In addition to suffering the regular -2 penalty, characters who roll a 1 or 2 on their attack die (regardless of Wild Die) become Shaken as above. Laser weapons and ballistic weapons with minimal muzzle velocity (such as those designed to be used in zero-g or those firing magnetically propelled rounds) negate this problem.

More detailed rules for zero-g environments can be found in the *Red Rising Savage Setting*.

Low-G

Low-g environments are similar to those of zero-g, but not as excessive. Natives are taller than humans and of lighter build. In game terms, they have -1 Toughness.

Pace is reduced by 1 (to a minimum of 1) and



the penalty for physical actions is reduced to -1. In addition, the character only loses control if he rolls a critical failure. Character using conventional weapons

Gravity Effects Table

A character born to a high-g world finds his muscles allow him to lift more on a low-g world. Conversely, characters born to a low-g world are weaker in high gravity. The reverse is true for Agility. Check the table below for the die type modifiers a character receives to Strength and Agility rolls (but not linked skill rolls) when operating in a different gravity than his own. Traits cannot be lowered below d4. There is no upper limit. The numbers below are the multiplier to a character's jumping distance and modifiers to Pace (to a minimum of zero).

The characters homeworld gravity is listed across the top, and the current gravity down the side.

	Zero	Low	Normal	High
Zero	No modification x1	+1 Strength/-1 Agility x2	+2 Strength/-2 Agility x5	+4 Strength/-4 Agility x10
Low	-1 Strength/+1 Agility x0.5	No modifier x1	+1 Strength/-1 Agility x2	+2 Strength/-2 Agility x5
Normal	-2 Strength/+2 Agility x0.25	-1 Strength/+1 Agility x0.5	No modifier x1	+1 Strength/-1 Agility x3
High	-4 Strength/+4 Agility No jump distance	-2 Strength/+2 Agility x0.25	-1 Strength/+1 Agility x0.5	No modifier x1

New Edge and Hindrance

Here is an example Edges and Hindrance relating to gravity.

Zero-G Training

Requirements: Novice, Agility d8+

The character has been trained to operate in a zero-g environment and suffers no penalties to movement or for rolling a 1 on his physical trait rolls. He is still affected by the Agility loss and Strength gain, however.

Zero-G Sickness (Major)

The character gets sick when operating in zero-g. The character constantly throws up and becomes dizzy. Treat him as Fatigued whenever he is in zero-g and not restrained in some way.

in a low-g setting become disoriented and Shaken on a roll of 1 only (regardless of Wild Die).

High-G

While becoming disoriented in zero-g can be a nuisance, not to say potentially deadly, high-g environments have their own problems.

For a start, physical exertion, even walking, is exhausting. A character from a normal gravity world must make a Vigor roll every four hours he is awake or become Fatigued. Low-g characters roll every two hours, and zero-g characters every hour. Fatigue is reduced one level per hour of rest.

Pace is reduced by half (rounded down) to a minimum of 1. All physical actions have a -2 penalty because of the extra effort involved in moving. If the character rolls a 1 on his trait die (regardless of Wild Die) he has overexerted himself and is Shaken by momentary exhaustion.

Unlike in low and zero-g environments, this is a Vigor roll to recover.

2. Terrain

This section looks at the basic terrain types from Table 2 and gives a brief overview of what they are like. Although we've only listed one terrain type per world, there's nothing to stop you using other terrain to create a more realistic world.

The rules listed for each terrain type are optional, and add complications to traveling or fighting in the terrain. Guidelines for creating hazards can be found on page 21 and movement effects are on page 34.

Deserts

Deserts come in two types—hot and cold. For convenience, the desert entry on Table 2 is a hot desert. The arctic entry is for cold deserts. All deserts are defined by a lack of precipitation.

On Earth, cold deserts are found at the poles or at high altitudes, and usually behind mountain ranges. The Gobi Desert is an example of the latter. Arctic deserts are actually tundra, being vast expanses of open terrain with minimal to zero vegetation. Biting winds, often whipping the ground snow into blizzards, are common. These winds, and a general lack of soil, prevent plant life other than lichens (which grow in cracks on exposed rocks) from taking hold.

Any animal life will be well-insulated against the cold, using blubber, fur or a combination of both to retain body heat. The extra body mass required to retain warmth means that animals are usually larger than temperate varieties. Often they are also more vicious, as food is required to generate heat.

Conversely, hot deserts are usually seen as dune seas, though on Earth only 20% of deserts fall into this category. The majority are rocky deserts, as typified by almost the entire surface of Mars.

Wadis, dried river channels caused by flash floods line the terrain, and rounded, sandblasted hills protrude high above ground level. Due to wind and sand erosion, most rocky deserts have rounded rocks, though in a thin atmosphere such weathering is not as violent.

Animal and plant life require water to survive. Plants will either be located near oases, have deep roots stretching down to the water table, or, like the cactus, store water during the short wet season for use later. Most animals are small, thus requiring less water, reptilian (they handle heat better than mammals), and poisonous. Using poison allows for a quick kill, which means the creature can spend less time in the baking sun.

Rules

Flat, featureless deserts can easily fool a traveller into misjudging distances. A lack of landmarks and the

way the sun plays on the terrain can cause travellers to greatly misjudge distances. What looks like a 100 yard walk may in fact be several miles. If you wanted, you could introduce a penalty, say -2, to Shooting and Throwing to represent this difficulty, as well as Notice rolls when judging distance.

In hot deserts, heat haze can also cause problems. The rising air causes visual distortion and can even conceal small objects and animals close to ground level. A -2 penalty to Notice, Shooting, and Throwing may be applied if you wish to simulate this effect.

Arctic deserts contain plenty of water, but are usually lacking in food. In hot deserts, the situation is reversed. Survival rolls to find food and water should suffer a penalty, perhaps as high as -4 in truly barren regions.

Forest & Jungle

Forests exist on Earth pretty much everywhere there is good soil. In tropical regions, forests are known as jungles and have a much higher rainfall.

Forests and jungles have different types of trees, but at the end of the day they're still trees. Deciding exactly what sort of vegetation makes up your forest or jungle might be fun if you're concentrating on a single world, but otherwise use parallels from Earth as a rough guide.

The largest trees of Earth are the giant redwoods, but there's no reason why in your world trees can't grow to thousands of feet tall, especially in a low gravity environment. In a pulp or space opera game, trees may be large enough to house buildings, and perhaps even support starship landing platforms in their top branches.

Rules

For game purposes, forests can be listed as light, medium, or heavy vegetation. As well as affecting movement through them, you may also wish to penalize the use of ranged weapons and perhaps even Notice and Driving rolls, in accordance with the Cover rules. Conversely, Stealth rolls for hiding may well receive a bonus to account for ground cover.

Depending on the type of forest and season, you may wish to grant a bonus or penalty to Survival rolls. Water is usually plentiful, but many berries and fungi can be poisonous.

Marsh/Swamp

Technically there is a difference between marsh and swamp, but you can ignore it for game purposes. Both types are waterlogged, either because they are near or below sea-level, because the rainfall is excessively high in areas where the underlying rock prevents easy

drainage, or because the area is crossed by multiple water courses.

You can decide that marshes are just wetlands, covered in tall reeds or other grasses, or mangrove swamps, which you should treat as forests for purposes of vegetation density.

Marshes are often home to many types of creature, especially birds. Depending on the type of marsh, there may also be fish. Given the amount of water, it is not unusual for the wildlife to be amphibious.

Rules

At your discretion, marshes may provide some natural concealment—tall reeds are not uncommon in temperate marshes. A bonus to Stealth may be given if such vegetation exists. For mangrove swamps, treat them as forests.

Again depending on the season and type of marsh, a bonus or penalty to Survival rolls may be appropriate. Water may be brackish, salty, or muddy, but there is usually some edible animal and plant life.

Plains

Plains are open areas. Moors, farmland, prairie, savannah, and steppe are all forms of plains. Vegetation is usually limited to grasses and low shrubs, though some plains, such as farmland, may be the result of deforestation. In these instances, it is not unusual to find small copses breaking up the landscape.

Plains may be broken by hills or cut through by rivers, but they are generally good places to live. Soil quality varies considerably—steppe, for instance, tends to be found at higher latitudes, where strong winds blow away top soil (and make it next-to-impossible for trees to grow).

Because of the lack of cover, predators tend to be fast moving hunters or ambushers. Herbivores are likely to roam in vast herds, wandering the countryside on a seasonal basis in search of fresh vegetation and water.

Rules

There are no special rules associated with plains.

Water

Water exists on most worlds, but water worlds have an abundance of it. Treat them as being 90%+ water. Land usually consists of small island chains or a single landmass. You don't need to go into depth about currents and tidal effects (unless you want to, of course). Some races may make their homes underwater, either because they are aquatic or living in sealed cities.

Rules

Unless the characters are aquatic or protected by magic, water is a hostile environment in which to live. Use the rules for Drowning.

3. Atmosphere

All major life-forms, with the noted exception of energy beings, need to breathe some sort of air. Exactly what the air is comprised of depends on the race, but for most it should be a nitrogen-oxygen mix.

This section looks at the five types of atmosphere used in world creation. Aside from exotic atmospheres, the other entries assume a mix akin to Earth's.

None

The world is either a true vacuum or has an atmosphere so thin that breathing is impossible without artificial aid. Worse, the lack of atmosphere means the pressure is also extremely low, if there is any pressure at all. While bodies do not explode in vacuum, blood vessels burst, and the lungs rupture because of the body's internal pressure.

Operating in no atmosphere requires the use of spacesuits. If, for any reason, a character's spacesuit loses integrity, the character must make a Vigor roll every round or suffer an automatic wound.

Ranged weapons work better in minimal atmosphere because there is no air resistance (for ballistic weapons) and no diffraction (energy weapons). Double the range brackets of all ranged weapons.

Explosions also work differently in vacuum. While there is no concussive blast (that being the result of air being forcefully expelled from the centre of the explosion), shrapnel flies further. To simulate this, increase the Burst Template of the weapon by one step and lower damage by one die. For instance, a regular grenade in a no atmosphere environment would have a Large Burst Template and inflict 2d6 damage. For Large Burst Template weapons, increase the radius by an additional 3".

If you want to make such environments feel more unusual, you may wish to allow melee weapons inflict +1 damage because of the lack of air resistance. Thus, a dagger would inflict Str+2 damage and a molecular sword Str+6. However, the lack of resistance can cause the weapon to feel different in the user's hands, giving a -1 penalty to attack rolls.

Thin

Thin atmospheres are like those of Mars. As well as having little breathable oxygen, the pressure can cause physical trauma as blood vessels expand and burst.

In general, characters require spacesuits to operate safely in thin atmosphere. Any breach of the suit forces the character to make a Vigor roll every minute to avoid gaining a level of Fatigue (there is some breathable air). Recovery is only possible if the victim returns to standard atmospheric pressure and one Fatigue level is recovered every 10 minutes.

If the temperature roll is 5 or lower, you may rule that the pressure is high enough to support life without a spacesuit. The character still requires breathing apparatus, however.

Because there is some atmosphere, there is air resistance. Increase the range brackets of weapons by 50% (rounded down). Thus, a pistol with a standard range of 12/24/48 would increase to 18/36/72. Explosions and melee weapons remain unaltered.

Dense

Dense atmospheres have a higher pressure than Earth and are just as difficult to breathe in as thin atmospheres. While the body has no risk of rupturing, the character must wear some sort of breathing apparatus. Without it, he must make a Vigor roll every 30 minutes or gain a level of Fatigue. Recovery is only possible when the character receives air at standard pressure and one Fatigue level is recovered every 10 minutes.

The denser air also affects ranged weapons. Decrease the range brackets by 50% (rounded down). Thus, a rifle with a standard range of 24/48/96 would decrease to 12/24/48.

Explosives have a greatly increased pressure wave, but the shrapnel is less effective. As with thin atmospheres, increase the Burst Template of the weapon by one step and lower damage by one die.

Added complication can be made to melee weapons if you want to go that route. Higher air resistance not only causes -1 damage (so a fist would inflict Str-1), but the increased pressure gives the user a -1 penalty to Fighting rolls as well.

Exotic

The gaseous content of an exotic atmosphere does not support human life, regardless of pressure. It may be high in carbon dioxide, like Mars, or made of more primeval gases like methane, hydrogen, and ammonia, as with Jupiter and the other gas giants.

A character without a rebreather (or spacesuit if the pressure is too low) must make a Vigor roll every round or suffer a Fatigue level. Recovery is only possible when the character receives air at standard pressure and one Fatigue level is recovered every 10 minutes. The rules for pressure affecting weapons apply as normal.

Finishing Touches

Now you've finished detailing the physical aspect of the world, there are a few more things to consider before moving on to looking at the government, law, and tech index of the world.

Climate

Take a look through the Hazards section of the rulebook and you'll see that there are rules for hot and cold environments. The unlisted middle ground is temperate, which has no particular difficulties associated with it. You need to assign a climate to your world so you can use the appropriate Hazard rules. It's easier for a sci-fi game involving hundreds or thousands of worlds to list them as either hot, cold, and temperate. For convenience, treat any world with an average temperature of 32 degrees or less as cold and 75 degrees or hotter as hot.

Assigning a climate type to a world doesn't mean parts of it can't fall into one of the other categories. A desert may be hot by day, reaching temperatures of over 90 degrees, and plummet to below freezing at night. Freak weather events can make even a temperate land succumb to freezing temperatures or excessive highs.

Weather

Weather in adventures is either irrelevant or used purely for atmosphere. For the most part, players usually don't care if it's sunny or raining, unless they need to make a Tracking roll.

If you want to let the dice play God, however, here's a Fast! Furious! Fun! weather table. All you need to do is fill in the details based on the character's location. The chart works for all terrains and climates.

If you want to add weird weather effects, like a psi storm, then feel free to do so. Sample mechanics are presented in the *Sci-Fi Bestiary Toolkit*.

d20	Weather
1-5	Clear skies
6-9	10% chance of precipitation*, else overcast
10-12	25% chance of precipitation*, else overcast
13-14	50% chance of precipitation*, else overcast
15-16	75% chance of precipitation**, else overcast
17	Heat wave
18	Cold snap
19	Storm/heavy snow/sandstorm
20	Thunder storm/blizzard/sandstorm

* 0% chance in desert regions.

** 10% chance in desert regions.

Sample Weather Effects

Most weather effects don't affect the game and can be handled by common sense. If it's raining, things get wet, if it's cold they get slippery. Some events, however, may make life difficult for the characters.

Blizzard/Sandstorm

Those caught in a blizzard or sandstorm must make a Fatigue roll at -2 every hour until they find shelter (Survival at -4, one roll per group).

A roll of 1 indicates not only failure but the character wanders over a deep crevasse as well). Naked flames are automatically extinguished, and visibility counts as Pitch Black.

Cold Snap

The temperature plummets, possibly to dangerous levels. Roll 2d10+10 to determine how many degrees the temperature drops below normal. If it goes below 32 degrees, use the Cold rules to determine the effects. The cold snap lasts for 4d6 hours. Unless the daytime temperature is low, a daytime cold snap is unlikely to cause any difficulty.

Heat Wave

The temperature soars, possibly to dangerous levels. Roll 2d10+10 to determine how many degrees the temperature rises above normal. If it goes over 90 degrees, use the Heat rules to determine the effects. The heat wave lasts for 4d6 hours. Unless the nighttime temperature is high, a nighttime heat wave is unlikely to cause any difficulty.

Heavy Snow

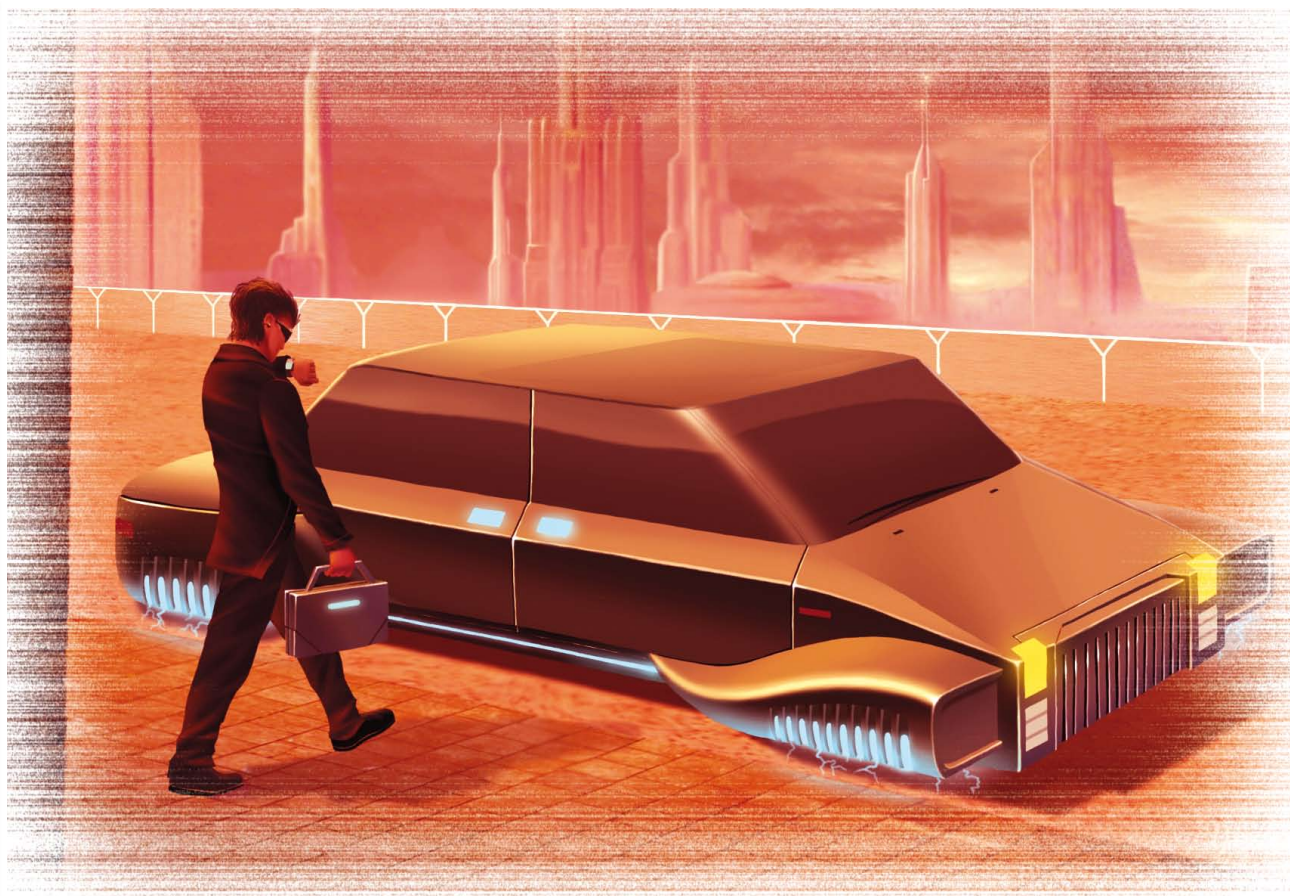
Heavy snowfall can make the ground difficult to traverse. Walking through deep snow counts as Difficult Terrain. In addition, Agility and linked skills suffer a -1 penalty because the character is knee-deep (or higher) in the snow.

Storm

Storms are typified by dark skies and lashing rain. The downpour reduces visibility (treat as Dark Lighting), extinguishes most normal fires within 1d10 rounds, and only volatile materials have a random chance of igniting from fire-based attacks. Storm conditions inflict a -1 penalty to most actions due to slipping, difficulty hearing, strong winds, and so on. The Game Master must decide if other actions are affected.

Thunder Storm

Visibility is reduced to just 12" (and still subject to Dark Lighting) and the ground turns into a quagmire. Any character running must make an Agility roll or



fall prone and become Shaken. Most actions suffer a -2 penalty.

Non-game effects include flash floods and lightning strikes, possibly damaging nearby buildings, drowning livestock, and flattening crops.

Ecology

With the terrain and climate worked out, you might want to spend some time on the planet's ecology. Unless the characters are going to spend an extended period, it's probably best not to waste time detailing every single planet. Just make up beasts as you need them or grab one from the *Sci-Fi Bestiary Toolkit*.

For the most part you can forget about the plant life (unless it's dangerous). The terrain and climate give you a good idea of the sort of plants found on the world. It's more important to think about the animals you can use to harass the party.

Again, don't worry about most herbivores. The majority of herbivores are likely to run from the characters, or at least ignore them. Although there are aggressive herbivores, these should be a small minority. Concentrate instead on the omnivores and carnivores, as these are the types most likely to attack the characters. Although you can create Encounter Tables, it is probably best to script encounters on most

worlds, if only to save yourself the trouble of detailing hundreds of separate tables.

4. Population

Population has been left deliberately vague. The table entries allow you to decide on a population based on the size of the world. People tend to live together, both for mutual protection and financial reasons.

As such, there will usually be one or more major cities on the world, normally housing, between them, around 30% of the total population.

How the population lives is a matter of the planet's gravity, atmosphere, climate, technology, and to a lesser extent their government. A corporate world with a dense population and average tech index may consist of corporate enclaves, each being a small city in its own right, and probably with its own spaceport.

If the world has an atmosphere other than one like Earth, people may live in domed or subterranean cities. On a water world, there may be cities on islands or in underwater domes. Assuming the technology supports it, the spaceport may be on the surface, perhaps on an artificial island or a gigantic grav platform, or in orbit, with shuttles required to reach smaller, surface landing sites.

5. Government

Every planet has some sort of government. It may not be democratically elected, but it is the highest authority on the planet. As mentioned above, you only need to roll once for the government unless you specifically want multiple governments (maybe the planet has a civil war).

Don't worry about exactly how the government works. The governmental descriptions and the law entries will give you a good idea of how the system functions. You should, however, have a basic idea of who's in charge, why, and how they got there.

The list of governments is far from exhaustive, but it covers the basics. With a little thought you can create a wide variety just using the types presented below. For instance, a dictatorship might have three military leaders, one for the infantry, air force, and space navy. An oligarchy on a sparsely populated world might consist of the eldest members of the first families to colonize the world, making it a clan-oriented society. Don't be constrained to follow stereotypes.

Anarchy

The world has no formal government. If the world has a very low population, it may represent small families of colonists who live separate lives and have no interest in forming a government. Of course, the families may also be feuding.

The higher the population, the more chaotic the world usually becomes. Anarchy likely represents a civil war, with governments forming and being overthrown in rapid succession, or a transitional stage between governments. Of course, some alien species may have perfected Communism, where everyone truly is equal and people want for nothing.

Anarchic worlds are usually great places to adventure, especially if one is involved in the shadier side of life. Military campaigns can get great mileage out of these worlds, with the characters being mercenaries or freedom fighters.

Autocracy

An autocracy is government by a single leader in whose hands lies total power. He may have an advisory body, but they have no power to overrule his decisions. Autocrats may come across as totalitarian, but benevolent autocrats are just as likely as tyrants. Autocrats may be hereditary, conquerors, or be granted the title by a predecessor, but they are never elected.

Autocracies are likely to be hotbeds of political intrigue. Achieving total power is a tempting goal, and characters may be caught up in plots to place a new leader in power.

Bureaucracy

A bureaucracy is government by a number of departments, each in control of a single aspect of governmental rule. Bureaucracies are notoriously inflexible, with strict procedures that must be followed.

With a bureaucratic government, there may be forms to complete for even mundane aspects of life, such as doing the shopping, or traveling out of town. The stricter the law, the more paperwork must be completed on a daily basis.

There is also the potential to be pushed from department to department in a seemingly endless circle before one can find what one wants, with each department denying responsibility for whatever the character seeks.

Nothing moves fast in a bureaucracy, and arguing or haranguing the bureaucrats can result in applications and requests being moved to the bottom of a very large pile.

Company/Corporate

One or more companies or corporations run the planet. Where there is more than business involved, the chief executive officers of each organization form a committee, with power being either equal or based on the size and profitability of the company.

Single company governments are likely to be corporate worlds, with the vast majority, if not all, of the population being company employees. Typically this is common only on low population worlds. A single company government would run on the same lines as the company, with directors being appointed to run the various departments required to control a planet.

Confederacy

Confederacies are an alliance of states or factions whose appointed leaders form a central authoritative body. The governing body usually has little true power over other members, and at best can use embargoes or invasions to bring rogue states into line. The United Nations is a confederacy. Were the United States to remove the position of president and rely instead on the Senate, it too would be a confederacy.

Individual states within a confederacy may have different forms of local government, with the federal government being responsible for policies affecting member states, such as defense pacts or trading alliances.

Dictatorship

Dictatorships are ruled by an individual in whose hands rests total power. Although the term is now used almost completely to describe autocrats and tyrants, its original meaning was very different.

Dictators came into being in ancient Republican Rome, when they were elected by the Senate to take control of Rome during a crisis. They served for a fixed period, and then handed the reins of power back to the Senate.

For this purpose, we assume that a dictator has been elected as leader by a governmental advisory body on a permanent basis, but does not have total authority. The senate, or its equivalent, has the power to remove a dictator if he acts against the interest of the people. Failure to hand over power often leads to civil war. A more extreme dictator could be the basis of an adventure as the characters fight to depose him.

Feudalism

Feudalism died out on Earth centuries ago, but it was once the standard government for much of Western Europe. Under feudalism, a vassal holds land and power from a superior in return for allegiance and service. In the old days, this power base was the nobility, with kings granting lands to dukes, dukes to counts, and so on down to the serfs at the bottom of the ladder.

A feudal planet is split into divisions known as fiefs. Depending on the population and size of the world, fiefs may be entire continents or areas no larger than a few dozen square miles.

Depending on your needs, the highest rulers in the land may be independent of each other with no central authority, or form an advisory body similar to a confederacy.

Meritocracy

Meritocracies are governed by people chosen for their abilities rather than other factors. Leaders are selected either by a series of tests, or, on some worlds, on their popularity.

Depending on the population, there may be a series of tests, starting at local level with successful contestants then moving onto national events, and finally planetary finals. On a large, densely populated world, the contests may take years to complete. As such, they are a continuing process, with the incumbent serving for as much as 10 years before his successor is chosen. Once the new leader takes control, the process begins again.

Popularity meritocracies run of a similar vein, but leaders are elected by the masses based on how popular they are. Sports stars, war heroes, even news presenters are all likely candidates for governmental positions, regardless of their political abilities. Of course, on such a world it is very likely that all such people receive political training in addition to job training.

Meritocracies may have a single leader, or a parliament.

Monarchy

A monarchy is led by a crowned figurehead. Traditionally, monarchies on Earth have been hereditary, but in your campaign they may be elected officials needing no ties to the incumbent.

Power can be absolute (similar to an autocrat in the sense of total authority) or limited by another body, such as a senate or even the noble lords or military commander. Some monarchs may claim divine right to rule, taking authority from the gods.

Oligarchy

An oligarchy is led by a small group of people known as oligarchs. Depending on the world, these may be the heads of the military, corporations, religions, social castes, familial factions, or a combination forming a balanced government.

Power is shared equally among the oligarchs, and each is likely to have a body of advisors protecting his interests.

Some oligarchies are hereditary, others based on merit within a given field, or perhaps common vote. In all cases, the oligarchy has total control over the planet.

Psionocracy

A psionocracy is a government formed from psionics, and has no equivalent of Earth. Overall leadership is often a council of senior psionics, either chosen by other council members or elected by their peers. Alternately, contests could be held each year to determine council seats.

Senior posts in the civil service and military are held by psionics. Depending on the law classification, non-psionics may be treated as second-class citizens, and refused education or basic health care, being seen as a blot of the gene pool, or treated with the same respect as psionic citizens.

This form of government works best on worlds where there are plenty of psionics. On worlds where they are few in number, they may be followed out of fear of their powers or treated as being "special."

Republic

Republics are democratic governments where power is held by a body elected by the people. Republics may have a single figurehead, such as a president, but their power is limited by the parliament of elected officials. There may or not be a number of political parties on the world, allowing officials of the same party to block vote on governmental issues.

Once in power, the officials serve for a fixed term. While in power they do not have to listen to the people, but failure to heed the wishes of the electorate may lead to loss of power at the next election or, in extreme cases, civil unrest.

Elections are held regularly and, on most worlds, any adult native may stand as a candidate, though having influence, politically, financially, or militarily, often helps. Vote rigging and intimidation or protection of candidates can be a source of adventure.

The exact dynamics of a republic vary immensely. Some may ban military officers from standing for office, for fear they will use the votes of their men to gain political power and then become autocrats. Others may limit the number of times an official can hold office.

Another form of republic is where power rests more with the people than their officials. In this setup, citizens have the right to vote on any governmental matter. Unless the population is low or technology sufficiently advanced that citizens can vote electronically, this system is cumbersome and would lead to an extremely slow governmental process.

Theocracy

Religion is often overlooked in sci-fi games, but there's no reason why religion and science can't exist together. A theocracy is technically run by one or more gods, but in practise it is the priesthood who hold power.

Depending on the number of gods followed, there may be a single leader, possibly treated as being of divine origin, backed by an advisory body or a conclave of high priests, with each member having an equal vote.

It is likely that non-priests can hold government office, or perhaps even work for the government in any form. Non-worshippers may be ostracized from holding any position of power or responsibility, or persecuted and treated as criminals. Depending on the faith(s), the theocracy could be benign, caring for the needs of the followers, or totalitarian, forcing its beliefs upon the masses under penalty of death.

One of the two governmental bodies in the *Necropolis* Savage Setting is a theocracy.

6. Law

For the most part, laws exist to protect society and ensure its smooth running. Even totalitarian states, where the laws seem draconian, may have the citizens' best interests at heart.

Unless an alien culture has some very strange ideas about what is right and wrong, crimes like murder, rape, fraud, and theft are crimes on every planet. Even crimes no longer considered as such in many Western countries on Earth, such as blasphemy, may be serious offences on an alien world.

Each planet should have a few specific laws and punishments based around its governmental form.

Heresy, desecration, and blasphemy will be severely punished in a theocracy, but probably less so under most other governments. A bureaucracy may impose fines for failing to complete an official form correctly, whereas a corporate government may have differing degrees of theft and fraud.

You don't need to detail every single law or punishment—just have a rough idea of what constitutes a crime and what the punishment is.

None

This entry doesn't necessarily mean the planet is in anarchy. On one extreme, there may be absolutely no judicial system, with citizens free to murder and loot as they wish. Such a world would be a wretched place, and most likely home to several major crime syndicates. Punishments tend to be matters of revenge rather than imposed by the government, and feuds and vendettas would be part of daily life.

On the other end of the scale, citizens may be responsible for policing their own neighborhoods. Citizens form watch patrols, quite possibly armed given the general lack of central law, and have the right to arrest, try, and imprison criminals.

Lenient

A lenient legal system, also called a lax system, has few strict laws, and minor infractions are usually punished with a token fine. The carrying of identification may be required in some areas, but citizens generally do not need to produce id as part of their daily lives.

Rather than harass citizens for petty crimes, the police may concentrate on serious crimes. Despite being lenient in one aspect, the world may have few murders because of the efficiency of the police force. Of course, this does mean that characters mugged by local hoods get brushed aside by the police, but if one of them is murdered they can expect a great deal of support.

Citizens have the right to carry weapons, although even in this system walking round with a grenade launcher would be frowned upon. Whether or not the citizen has any legal right to actually use the weapon depends on the specifics of the world.

Perhaps citizens sort out legal disputes through duels, which, so long as basic rules are followed, are perfectly legal. Spilling someone's drink may result in a fight on some worlds, but on this world it leads to a duel to first blood.

Average

An average law index is roughly equivalent to most Western countries in the 21st century. While the police may occasionally pull you over for a spot check, especially if you're driving a vehicle, they don't

usually harass the citizens.

Citizens accused of a crime can expect a fair trial, and punishments fit the severity of the crime. Some worlds may impose hard labor as a punishment, especially those with great mineral wealth.

Strict

Under a strict system the police have greater powers to stop and search suspects without any reason. Citizens are expected to carry ID with them at all time and must submit to searches of their person or home on request.

Surveillance cameras and police patrols are an ever-present sight. The possession of firearms may be legal under very strict conditions, but most private citizens have no need to carry them.

Punishments are harsh, but the judicial system is fair and justice is equal for all members of society...

Totalitarian

A totalitarian system has a legal system that affects every aspect of daily life. Citizens are required to carry identification at all times, and have to produce it to do the shopping, or even to enter their own house. Security cameras are commonplace, even in private dwellings, and any infraction of the multitude of laws (many of them extremely petty) is swiftly and severely punished.

Police not only have the right to stop and question citizens, they do so with great frequency. If psionics is common, citizens' thoughts may be monitored and malcontents taken away for questioning or immediate imprisonment.

The owning of weapons, yet alone carrying them, is a serious criminal offence on such worlds, possibly carrying the death penalty.

Despite being a totalitarian society, the streets are actually quite safe. Crime is likely to be minimal, if existent at all, and citizens know that if they do require police assistance, it is never far away. Characters used to knocking off banks are likely to be surprised by the police response, which is not only swift but brutal. Heavy firepower may be called in to deal with troublesome characters armed to the teeth.

Determining Guilt

For most worlds, you can use the due process of your own country as a guideline as to how the judicial system works. Minor details like these only matter when a court case forms the basis of your adventure. Some GMs enjoy running court cases involving player characters as an adventure—they're certainly great for roleplaying.

If you don't want to go down that route, you'll either need to reach an arbitrary decision of guilt or

innocence or use a quick die-roll method. Of course, if the adventure requires a guilty verdict, the character is going to be found guilty whatever.

A very quick system might simply involve the character making a Persuasion roll with modifiers for evidence and witnesses. Depending on your wishes, a success might mean a reduced sentence and a raise a not guilty verdict, or he may just need a simple success.

One thing you will need to consider in a setting where psionics exist is whether psionics can be used to determine guilt or innocence. Can a psionicist use *puppet* on a defendant, or is that a breach of his human or alien rights to due process? Maybe in your setting psionics is always used in criminal cases. Even Weird Science needs to be addressed. Maybe courts use *puppet* gizmos to interrogate witnesses.

7. Spaceport

Most advanced worlds have a spaceport, somewhere starships can be serviced, repaired, or even built. Depending on its grade, a spaceport may be a clearing in a field with just a few huts to serve as customs posts and recreational facilities, to a sprawling city in its own right taking up as much space as a major city on Earth.

It is possible for a low tech index world to have a spaceport, though in general the two are closely related. When a primitive world has a spaceport, it may be in orbit, on the planet's moon, or located further out in the solar system away from the prying eyes of the locals. Of course, it may also have been built on the surface as part of a trade agreement or by a conquering army.

None

The planet has no spaceport facilities of any kind. Any craft landing there has to find a suitable clearing. Even if the world has sufficient technology for FTL craft, which is possible, the inhabitants have never constructed the facility. It may be they are xenophobic, or simply they have no wish to partake in galactic affairs. On a darker note, the spaceport may have been destroyed in a war.

Grade 1

A Grade 1 spaceport is has a dozen or so landing berths, but these are usually just paved areas exposed to the elements. Facilities consist of a few huts housing immigration and customs, a restaurant, and sleeping accommodation. While fuel is readily available, the small technical crew can only perform routine maintenance and have no facilities to conduct repairs of any sort.

Grade 2

Grade 2 spaceports are more advanced than the primitive Grade 1, but are still small. Capable of servicing around a hundred ships simultaneously, landing sites are usually concrete pads surrounded by a retaining wall for privacy and to prevent explosions damaging other ships.

Facilities exist to service vessels and perform basic repairs, although they lack the facilities to repair critical hits. Additional facilities are similar to a 21st century airport, although there are usually mercantile warehouses and corporate offices within the precinct.

Grade 3

Grade 3 spaceports can support from 500 to 1000 ships at once. Docking bays range from concrete pads to fully-secure hangars, with prices varying accordingly. The maintenance crew can service and repair all vessels, and can even repair critical hits.

At the core of the spaceport is a small city, containing all manner of mercantile and recreational facilities. Facilities for aliens with specific atmospheric, gravitational, or dietary requirements exist, but are usual located within an “alien sector” for convenience.

Depending on the government and law index, there may be a military base attached to the spaceport to provide security.

Grade 4

Grade 4 spaceports are vast, sprawling complexes covering thousands of square miles and are able to handle thousands of starships at a time.

Parking bays come in a variety of types, ranging from low cost concrete pads on the perimeter to expensive, covered landing strips complete with personal lounges and sleeping areas nearer the core.

Facilities typically found in any major city can be found in the spaceport. As with a city, these vary considerably in quality and price, but there is something to suit every budget and race. Specific starship related facilities include construction yards and repair facilities, and even starship rental offices.

Because such facilities represent a substantial investment of resources and money, there is usually a military base of some sort located within the spaceport precinct. Naval patrols are common in the solar system to prevent piracy.

8. Technology

The technology of a world can vary considerably from the default level of your campaign. After all, it's very unlikely every species in the universe has

developed FTL travel. You may wish to skip this step if you've decided that there are only a few alien worlds, each a technological power in its own right.

In some settings, primitive worlds (usually those without FTL travel) may be interdicted to prevent unscrupulous organizations and governments affecting the natural development of the world.

Primitive worlds can be good sources of adventure, however. Perhaps the world was once inhabited by a race of super-genius aliens, who killed themselves in a great war. Although the remnants of their civilization use only stone tools, there may be fantastic treasures waiting to be discovered. Also consider how the characters will cope on a primitive world if they need a vital ship part to repair a damaged spaceship.

The entries on the table don't require any specific explanation. The first four entries are a matter of historical fact and most GMs are likely to have a good idea of the technology available in these periods. The later entries can easily be worked out based on the default tech index of your setting.

Example

Here's an example world rolled up in under a minute. Our first roll gives us a high gravity planet. Rolling the d8, we get a 6, which gives a gravity of 1.8g. From this we can quickly see that the world is much bigger than Earth. The inhabitants will be short but stocky, with +1 Toughness because of their dense bones.

For terrain we roll water, which gives us a base temperature of 50 degrees. The atmosphere is normal pressure and composition. Our d20 result was a 3, which gives a temperature modifier of -7, for a final temperature of 43 degrees. A little cold, and the world probably has extensive ice caps.

Our next four rolls give us a densely populated world run as a republic. The law is totalitarian, the spaceport a Grade 2 facility, and the technology slightly lower than the TI 2 we have chosen as our default.

We decide that the surface land is minimal. The majority of the population lives in partially submerged, domed cities on raised underwater plateaus. Only the elite in society live on land and breathe clean air—everyone else gets recycled air and artificial lighting.

The spaceport is quite large and obviously covers a sizeable area. Although we could put it on a floating island, we decide to place it on a part of the landmass. In this way, the totalitarian government can keep an eye on outsiders.

Despite being totalitarian, the citizens elect the government and therefore have some power in

overturning unjust laws, and we decide that they are an open race, who have nothing to hide. Honesty and integrity are important parts of their culture.

in mind, use these guidelines to check the race is balanced, but go with what's in your head. Only you know what races best fit your setting.

Alien Races

Whether you've finished drawing your galactic map and placing worlds or whether you've decided to skip ahead, at some point you'll need to think about populating your setting. If you only have humans and antagonistic aliens, then you can probably ignore this chapter. Non-player races don't have to be balanced and can be created as monsters.

However, if you're planning on allowing the players to pick from alien races, you'll have to design those races. The system presented here is a quick way of putting together a balanced race.

This system expands on the sample racial abilities in the *Savage Worlds* rules. You should read through the rules on Creating Worlds in that book.

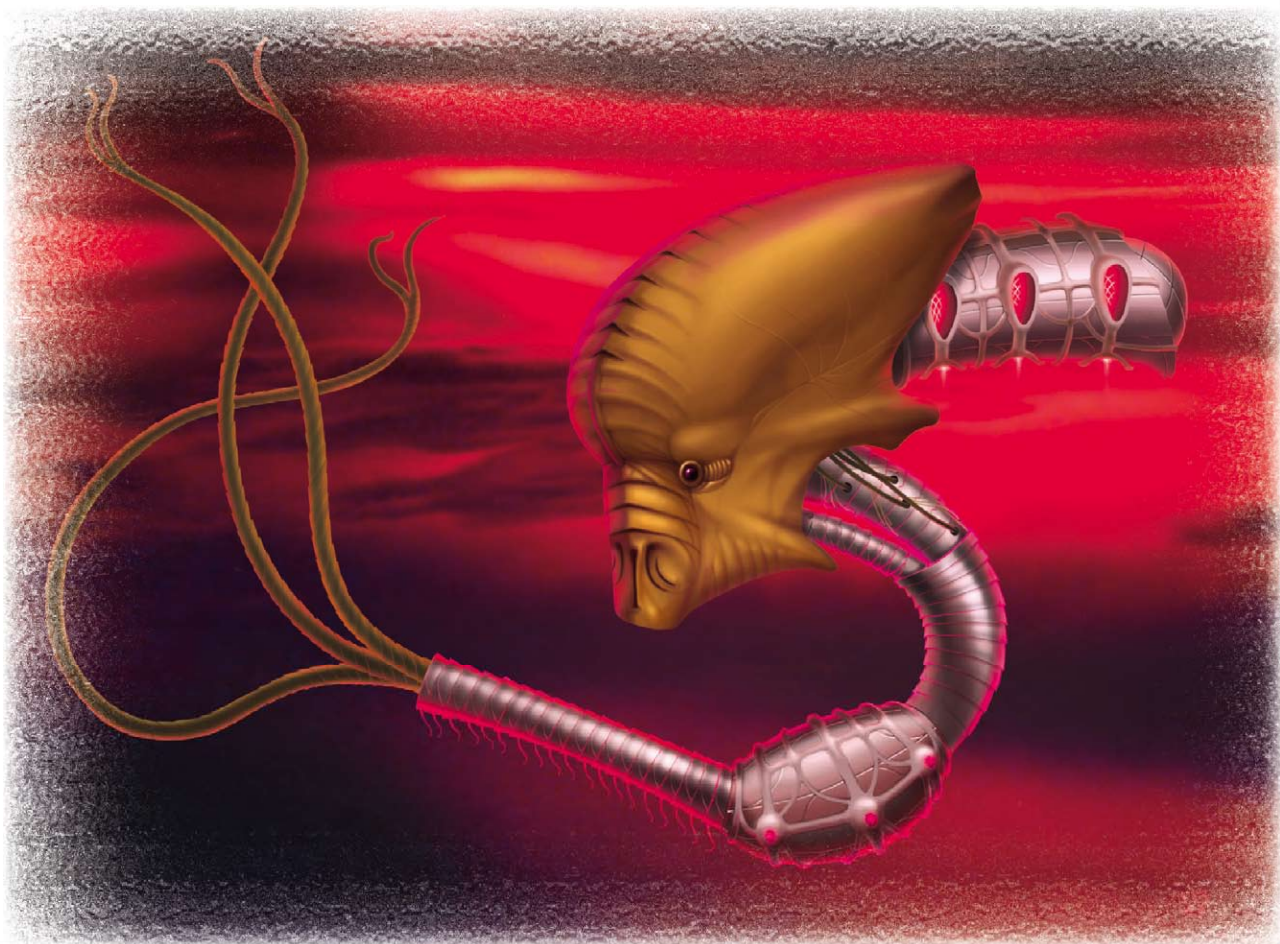
This system can be used for creating virtually any alien race you can imagine, but it shouldn't replace your own imagination. If you have a cool design

Racial Abilities

Take a look at the standard races in *Savage Worlds* and you'll see that they all have racial abilities. Even humans have one—they receive a free Edge. Rather than use these default templates, you may wish to make your own races.

Once you have a basic idea of what the race is like, you can begin picking abilities. These should fit your vision, not simply provide game mechanic bonuses or penalties. We've included a few possible abilities below.

All races and cultures begin with a free +2 Racial Ability. This is equivalent to a human's Free Edge. Additional positive abilities must be countered with an equal value of negative ones. A +2 ability, for example, may be countered by a single -2 ability or two -1 abilities. Individual Game Masters should decide on the maximum number of additional Racial Edge points allowed in their game, but 2 to 4 points



is not unreasonable. This provides enough scope to make an interesting race, without unduly unbalancing the game.

The list below is a guideline. If you want something special or not listed, assign it a value based on existing examples. For example, the Rakashan's Pounce grants a bonus, but is balanced with a reduction to Parry, making it a +1 ability.

This method is not suitable for designing monsters—they don't have to be balanced in the same way as player races. For notes on designing monsters, check out the *Sci-fi Bestiary Toolkit*.

Sample Abilities

+3 Edge

- Free Seasoned Edge (regardless of requirements—except for those that require other Edges—you cannot take Improved Level Headed without having Level Headed first)
- Hardy (a second Shaken result in combat does not cause a Wound)
- The race begins with a d8 in one attribute and may raise it to a d12+2 during character creation. Through the Expert and Master Edges it may reach a d12+4.

+2 Edge

- +1 Parry (warlike race)
- +1 Size (wide, tall)
- +1 Toughness (high gravity world, tough skin, weird physiology; not negated by AP weapons)
- +10 Power Points (Psionics only)
- +2 Armor (metal, stone, or crystalline skin; negated by AP weapons)
- +2 Charisma (charismatic, popular race)
- +4 bonus to resist the effects of heat, cold, or radiation (resilient, alien physiology)
- Aquatic (cannot drown in water, move at full Swimming skill, d6 Swimming)
- Base Pace 10 (lightning fast, multiple limbs)
- Construct (sentient mechanical men)
- Free Novice Edge (regardless of requirements—except for those that require other Edges)
- Multiple arms (one extra non-movement action per limb, incurs no multi action penalty, price is per additional limb)
 - Poison (victims that suffer a Shaken result from your natural weapons must make a Vigor roll or be paralyzed for 2d6 rounds)
 - Start with a d6 in one attribute
 - The ability to Fly (wings)
 - Use of a single racial Power. The character has 5 Power Points usable solely for this Power. Power

Creating Races

Many sci-fi settings stick to using solely humans, or at least races with a humanoid frame. Of course, there's no reason why you should. Maybe you want to introduce sentient blobs or lion men. Following these simple steps will allow you to create your own race in just a few minutes.

Description

First, you need to decide what sort of creature you wish to play. What do they look like? What are their strengths and weaknesses? What is their native environment? Do they value or despise psionics? How do other races perceive them? Spending a few minutes deciding these facts makes the next step much easier.

Choose Racial Abilities

Use the list of suggested Racial Abilities on p.29-30 to give the race strengths and weaknesses. Don't go overboard—a few well chosen abilities are better than a dozen ones that don't really fit.

Unless you want all your characters choosing to play one, keep the new race balanced with the standard races. Remember, all races' abilities should add up to +2.

Pick a Name

Often the hardest part of creating a race is coming up with a cool name. Avoid giving it a humorous name—the joke will soon wear thin and your setting will suffer as a result.

If you're stuck, look through books on mythology or a foreign language dictionary. Don't use well-known mythological names for races unless you are creating that specific race—calling a feline race caninities will just confuse everyone.

Points recharge at the rate of 1 per hour and are unaffected by Rapid Recharge. Power Points from other sources cannot be used with this power. This power represents a single psionic function, such as generating frightening hallucinations (*fear*), or a natural ability, such as generating a “smoke screen” (*obscure*) or a highly developed adrenal gland (*quickness*), for example. Psionic-type powers use Smarts; physical ones use Vigor as the arcane skill.

+1 Edge

- +1 Reach (extendible arms, abnormally long arms)
- +2 bonus to resist the effects of heat, cold, or radiation
- +5 Power Points for use with a single racial Power (as described above)
- Burrowing, Wall Walker, or similar
- Free d6 in any skill
- Immune to poison or disease
- Keen Sense (+2 to Notice when using one sense)
- Low light or Thermal vision
- Natural Weapons (Str+2 in any one weapon or Str+1 with any two)
- Potent Poison (must have Poison, each level gives victims a -1 penalty to their Vigor roll)
- Semi-aquatic (gain Fatigue level every 15 minutes he holds his breath. On reaching Incapacitated, must make Vigor roll every minute or drown. Fatigue recovers one level per 15 minutes back in air)

-3 Hindrance

- One attribute requires two points per step to raise during character generation. The character must dedicate two leveling opportunities to raising the attribute during game play.

-2 Hindrance

- -1 Parry (peaceful race, clumsy)
- -1 Toughness (thin skin, exposed organs)
- -4 bonus to resist the effects of heat, cold, pressure, or radiation (poor physiology, thin skin)
- Dehydration (the alien must immerse itself in water one hour out of every 24. Those who don't are automatically Fatigued each day until they are Incapacitated. The day after that, they perish.)
- Major Hindrance (or equivalent effect)
- Pace 3 or less (d4 running die) (slug-like race, stubby legs, ultra fat)

-1 Hindrance

- -2 bonus to resist the effects of heat, cold, pressure, or radiation (poor physiology)
- -2 Charisma (bad reputation, really ugly)
- Minor Hindrance (or equivalent effect)
- Pace 4—5 (stocky, short legs)
- Racial Enemy (-4 Charisma and the Bloodthirsty Edge when dealing with one other race)

Example

Let's take a look at the aliens on our world.

The most noticeable features about the world are the high gravity and it being covered in water. We don't really want an aquatic race, so we opt to focus on the gravity.

For our free +2 Edge equivalent, we opt to give them +1 Toughness. Although the race is short as a result of the gravity, they are exceptionally stocky, with dense bones and muscles.

They're likely to be humanoid, simply because having a backbone would be vital to survive in high gravity. So, no specific bonuses spring to mind based on their appearance.

We noted under the planet description they were an open and honest race. Their reputation for openness is well-known, so we'll give them +2 Charisma.

Being open and honest, however, can be a drawback. This would most likely make them a trusting people, and therefore not masters of subterfuge. None of the listed Hindrances really cover this, so we'll create something new. The ability needs a name, so we'll call it Gullible. It gives them a -2 penalty to resist Smarts-based Tricks (not Tests of Will). Since it's unlikely to crop up in every adventure, we assign it a -1 value.

Because the Charisma bonus cost +2 and Gullible only -1, we still need to assign another -1 ability to balance them. Given the gravity is high and the race quite short, we'll give them a Pace of 5 for -1 point.

And there we have it, a completely balanced player character race in a few minutes.

Customs

As well as different racial abilities, aliens may have unique customs. The same holds true to human dominated worlds, of course. There's no reason why a remote human world hasn't developed customs different from those of other human planets.

Customs can affect everything from fashion to the way people eat, from their living quarters to family practices. Take a look at our own race. Americans greet

by shaking hands, some Europeans kiss, and certain Oriental cultures bow. All perform the same social function, but are unique to certain nations.

You can assign customs as you see fit, or use the table below to quickly generate a set of national customs. Pick as many or as few as you want.

The customs listed here are generic. You should take a moment to think about specific details, such as why a particular custom is followed and the penalties for breaking it. Also feel free to add additional customs.

If you want to roll for customs, first roll a single d6 to determine how many customs the race has. Then roll on the table that many times.

Customs

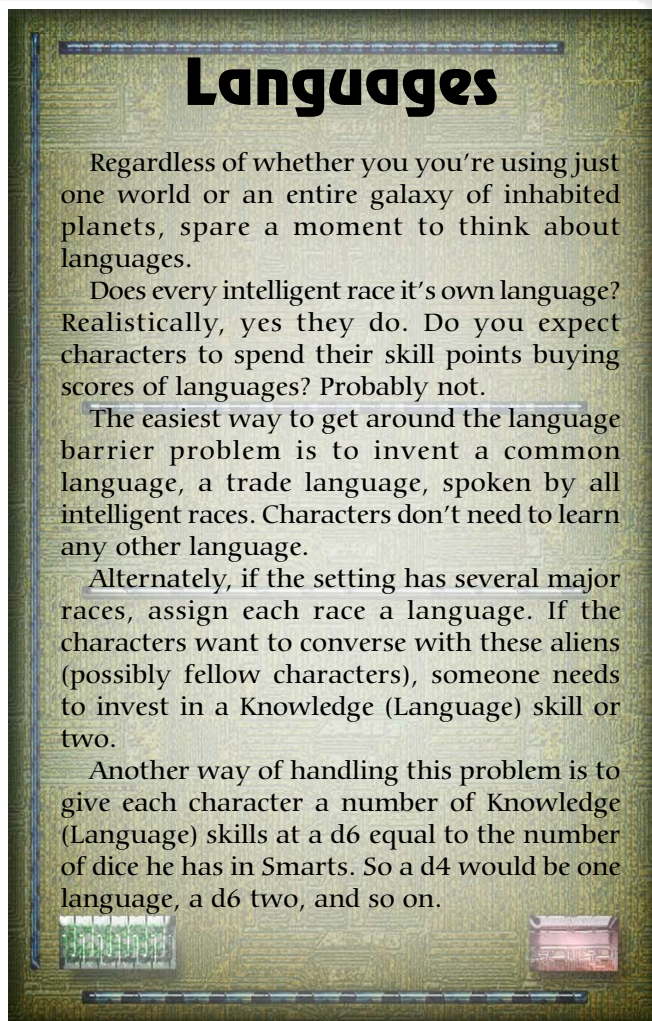
At your discretion, customs may apply only to a specific group or subgroup within society. Roll on the Group Table to determine who the custom affects.

d20 Customs

- 1 Tattooing required/prohibited
- 2 Shaved heads/never cut hair
- 3 Strange hairstyles
- 4 Significant clothing
- 5 Unusual cosmetics or jewelry
- 6 Unusual sanitation habits
- 7 Only eat with family/never eat with family
- 8 Marriage arranged by specific group
- 9 Live at place of work
- 10 Outsiders not allows to visit homes
- 11 Vegetarians/carnivores
- 12 Children named after individual/event
- 13 Hagglng required/prohibited
- 14 Specific adulthood rites
- 15 Live privately/communally/segregated
- 16 Specific ritual before meals
- 17 Vow of poverty/silence/chastity/other
- 18 Marriage required/limited/prohibited
- 19 Unusual greetings and farewells
- 20 Weapons prohibited/limited/required

Group Table

d20	Groups
1-2	Males
3-4	Females
5-7	Scholars or scientists
8-10	Priests or other religious figures
11-12	Nobles/the social elite
13-14	Workers/corporate employees
15-17	Commoners
18-19	Military
20	Different race



Languages

Regardless of whether you're using just one world or an entire galaxy of inhabited planets, spare a moment to think about languages.

Does every intelligent race it's own language? Realistically, yes they do. Do you expect characters to spend their skill points buying scores of languages? Probably not.

The easiest way to get around the language barrier problem is to invent a common language, a trade language, spoken by all intelligent races. Characters don't need to learn any other language.

Alternately, if the setting has several major races, assign each race a language. If the characters want to converse with these aliens (possibly fellow characters), someone needs to invest in a Knowledge (Language) skill or two.

Another way of handling this problem is to give each character a number of Knowledge (Language) skills at a d6 equal to the number of dice he has in Smarts. So a d4 would be one language, a d6 two, and so on.

Example

Let's look at the race inhabiting our example planet. Our d6 gives us three customs. We end up with vegetarians/carnivores, ritual before meals, and tattoos. We decide to roll on the Group table, just to see what we get. We end up with military, females, and scholars/scientists.

Looking at our results, we decide the majority of the population lives on the abundant plant matter grown in the warm, shallow seas. The military are allowed to eat meat as a mark of respect for their social position as defenders of the race.

We ignore the "females" result, and decide that all members of the race follow a specific ritual when dining. Given the high population and the difficulty of feeding so many people, we decide that food is rationed.

Lastly, since it was the planet's scientists who allowed their growing population to live underwater in safety, we decide that scientists receive distinctive tattoos on their hands marking their esteemed position in society.

Trade & Travel

Trade and travel are often at the heart of a sci-fi setting. With so many worlds to explore, and probably a starship to maintain, it makes sense to transport cargo while heading to and from adventures.

This chapter presents two methods of trading, depending on how important it is to the setting. In addition, it looks at getting around the galaxy.

Trade

Few worlds in a sci-fi setting are usually totally self-sufficient. Even if they have enough food and raw materials to keep the populace happy, foreign imports are always a desirable commodity.

This section presents two methods of handling trade in your setting. The first is a Fast! Furious! Fun! way that makes no attempts to be an accurate representation of intergalactic trade. It's designed to keep the game going, and yet still allow trade to be conducted in the background.

The second system is more in-depth, and allows the characters to buy specific cargoes to sell on specific types of world. It requires more work from you, the GM, (but not an excessive amount), but the end results can add another dimension to your setting.

In both systems, cargo is calculated in "spaces." This is an arbitrary measurement used to handle bulk quantities. Exactly how much a space of cargo weighs or takes up in volume is incidental, as is the exact nature of the cargo. Food, for instance, can be everything from grain to livestock. It all costs the same and fills the same space.

All starships presented in the *Sci-fi Gear Toolkit* have their cargo spaces listed.

Economy

Before we look at trade, let's take a quick look at economies. Most characters need money, mainly to buy bigger weapons and better armor. Characters are also notoriously mercenary, and don't usually work for favors or "the eternal friendship of our race" if they can get hard cash.

Most Savage Settings give the economy a broad brushstroke, and rightly so. Most players are happy to leave the calculators and accountancy books behind in favor of blasting killer robots and exploring strange, new worlds. While it's okay for them to worry about repairing their starship, having them fret over exchange rates on a hundred worlds is no fun for anyone.

It doesn't matter if you're using a single world or a galactic empire—stick to one currency. It doesn't matter whether you call it a credit, dollar, yen, Denebian gold widget, or a High Imperial crown. Unless you're planning on reworking the cost tables in the rulebook, one currency unit equates to \$1 in the rules.

You don't even need to have physical currency. Everything could be handled by credit sticks among the high-tech races, with actual money only used when dealing with more primitive races.

Should you have multiple denominations of coin? Of course, if you want. Remember though, characters are going to pay \$10 if you charge them \$10—they won't care whether they hand over two \$5 units, five \$2 units or a single \$10 coin. And don't get bogged down with half, quarter, or one-tenth units of currency either. So what if everything costs whole units—you're building a Fast! Furious! Fun! setting.

In all likelihood different planets have their own unique currency. However, for game ease, just assume that either there is a universal trade currency or that the characters automatically change their currency when they land on a new world. Okay, it may not be realistic, but it's quick and you only need one cost column on your equipment table.

Simple System

If trade is incidental to your setting, you may want to ignore it altogether. However, your players may decide that carrying some cargo is a quick way of making money. Rather than create a complex trading table, this system allows trade to be conducted with just a single die roll.

Buyers and sellers don't get the option of haggling. Once the die is rolled, the characters must accept the purchase and sale price, even if they make a loss on the transaction. Having a high Streetwise die and Charisma bonus is vital in matters of trade.

Buying: Purchasing cargo costs a base \$500 per space. A total of $2d6+3$ spaces worth of cargo (called a consignment) are available each day on any planet. The buyers make a cooperative Streetwise roll once per consignment.

Each success and raise on the roll reduces the cost per space by \$100 to a minimum of \$100. A failure increases the price by \$100. A critical failure results in a \$200 increase in price per space.

Selling: Selling a cargo space of goods brings in a base \$500 per space. Make a cooperative Streetwise roll once per consignment. Each success and raise on a cooperative Streetwise roll ups the unit price by \$100 to a maximum of \$700. A failure lowers the price by \$100. A critical failure results in a \$200 decrease in price per space.

Planets buy $2d6+3$ cargo spaces per day. Goods cannot be bought and resold on the same planet.

Complex System

The complex trade system requires more work from you as a GM. First, you have to decide on a planet's trade classification. For convenience, we use just four classifications. These bear no relevance to the guidelines in the World Builder chapter, however. If you want to design a system tying the two together, that's fine, but in most games it isn't necessary to go into that level of details.

Second, you need to create a Master Trading Table, like the one we've presented below. You can use ours, or make up your own. If you've got just a few worlds, you can replace the Trade Type column with the name of the world and make the costs more specific to what you know about the planet.

Commodities

Cargo comes in five commodity types—food, raw materials, manufactured goods, luxuries, and parts.

Food covers everything from livestock to cereals and tinned foods to spices.

Raw Materials include unrefined ores, radioactives, timber, coal, and just about any other substance that can be turned into something more useful.

Manufactured Goods are finished items and range from computers to firearms and robots to clothing.

Luxuries may include recreational drugs, artwork, fine pottery, sculptures, and other such items.

Parts are components for manufactured items. Vehicle engines and computer chips are classic examples.

Quantities

Listed after the cost in parentheses are two numbers—the first is how many of spaces may be bought on that world each week, and the second how

Master Trade Table

Trade Type	Food	Raw	Goods	Luxuries	Parts
Agricultural	200 (4d6/1d6)	650 (1d6/2d6)	800 (2d6/3d6)	1000 (1d6/1d6)	700 (1d6/2d6)
Non-agricultural	400 (1d6/3d6)	500 (1d6/2d6)	700 (3d6/2d6)	950 (1d6/1d6)	850 (1d6/3d6)
Industrial	500 (1d6/4d6)	700 (1d6/4d6)	600 (4d6/1d6)	1100 (1d6/1d6)	600 (4d6/1d6)
Non-industrial	300 (3d6/2d6)	600 (2d6/2d6)	900 (1d6/3d6)	1000 (1d6/1d6)	800 (1d6/3d6)

Agricultural worlds produce abundant food but have little manufacturing base.

Non-agricultural worlds lack agricultural industries but have some industry.

Industrial worlds have a strong manufacturing base, but little agricultural land.

Non-industrial worlds lack industrial complexes, but produce some food.

many can be sold. The numbers may seem low, but the characters aren't the only merchants, and vessels dedicated to trade may carry dozens of cargo spaces. Finding a buyer and securing a trade contract also takes time.

Buying

At the end of each week on planet, each character involved in mercantile activities makes a Streetwise roll to see if he finds a cargo for sale. Each character may only roll for one of the commodity types, and each commodity may be attempted only once per week.

Success: A number of cargo units as per the Master Trading table is available for purchase.

Raise: Each raise increases the number of spaces available by 1d6, with no limit.

Failure: Roll the number of dice indicated on the Master Trade table, then halve the result (round down).

Critical Failure: No cargo of that type is available this week.

Once a cargo is located, one character then makes a Persuasion roll to finalize the negotiations. The characters may buy part of a consignment—it's not all-or-nothing.

Each success and raise lowers the cost price per space by \$100, to a minimum of \$100. On a failure, the price increases by \$100 per space. A critical failure ups the price by \$200 per space. The deal is now complete and the characters own the consignment. No matter how good or bad the die roll, the character must pay the amount indicated.

Selling

Selling works in much the same way as buying, though naturally in reverse.

At the end of each week, the characters can try to find a buyer. Each character may only try to sell one commodity type in a week. Have each character selling a cargo make a Streetwise roll.

Success: A number of cargo units as per the Master Trading table is wanted by the buyer. (Obviously the characters cannot sell more than they have.)

Raise: Each raise increases the number of spaces sellable by 1d6, with no limit.

Failure: Roll the number of dice indicated on the Master Trade table, then halve the result (rounded down).

Critical Failure: No cargo of that type can be sold this week.

As with buying, once a seller is located, one character then makes a Persuasion roll to finalize the negotiations. The characters may sell part of a

consignment—how much they can sell is determined by the Streetwise roll, but how much they want to sell up to that limit is up to them.

Each success and raise increases the price per space by \$100. On a failure, the price decreases by \$100 per space. A critical failure lowers the price by \$200 per space. The deal is now complete and the characters part with the consignment. Again, no matter how good or bad the die roll, the character must accept the amount indicated or wait another week.

Travel

This section looks at travel, both on a planet and getting between worlds. While the ground movement section presents a series of tables, the space travel section is a list of possible ideas for handling FTL travel in your game.

Ground Movement

Although space travel is important to most sci-fi settings, sooner or later the characters are bound to explore a world using vehicle, beast of burden, or their feet. You don't need an accurate, scale map of every world. Just decide how far it is to their destination and use the chart below to determine the time it takes. The chart serves for mounted or walking rates.

Animal or Walking

Base Speed: Half current Pace in miles per hour.

Modifiers:

Ground	Speed	Terrain Type
Easy	+0.5	plains, road
Average	+0	rocky, light forest, low hills
Hard	-1	steep hills, sand, medium forest
Difficult	-2	mountains, heavy forest, marsh

Base speed cannot drop below 0.5 miles per hour unless the character is incapacitated. Groups usually move at the speed of the slowest member.

Ground Vehicles

Grav vehicles restricted to low altitudes (typically 10" or lower) suffer movement penalties in forests and mountains, but can ignore other terrain. True airborne vehicles ignore all terrain modifiers and move at their Top Speed.

Hovercraft ignore penalties for rocky, low hills, sand, and marsh, but are affected by other terrain as per ground vehicles.

The actual top speed of a vehicle in miles per hours is it's Top Speed x 2.5. However, vehicles rarely get chance to move this fast, even on paved roads. Multiply the Top Speed (in game inches) by the multiplier below to determine the vehicles actual speed in miles per hour.

Modifiers:

Ground	Speed	Terrain Type
Easy	x2	plains, road
Average	x1.5	rocky, light forest, low hills
Hard	x1	steep hills, sand, medium forest
Difficult	x0.5	mountains, heavy forest, marsh

Space Travel

Whether you're using multiple solar systems or just multiple planets within a single system, the characters need to know how long it takes to get from A to B.

Star Maps

Before you begin to think about space travel in terms of time, you need a star map. Exactly how big it is, in

terms of scale, depends on your setting. You'll need to know this so you can calculate how fast and how far a ship can travel.

One easy way is to use squared paper, placing planets in a square. The exact distance of each square might be a real world measurement, such as a light-year or parsec (3.16 light-years). Alternately, it might be a measurement in hyperspace and bear no resemblance to real world distances. Hyperspace squares might be called jumps, hops, or simply hyperspace days.

While you can just have a map dotted with planets, you may want to add other features. A black hole may be deadly, but they're also very small, and despite what you see in the movies, their gravitational pull only endangers ships passing fairly close. Large areas of space can become impassable by nebulae, the remnants of a supernova, a series of strong gravitational fields which make FTL travel impossible in those regions, or are maybe totally devoid of planets, which makes finding fuel and making repairs tricky.

Not only do these serve to break up the map, they allow you to place planets in or behind them. Reaching these worlds, which should have something going for them in terms of your Plot Point, thus involves either a



FTL & Gravity

Think about how gravity affects FTL travel. We don't mean in terms of creating artificial gravity within a starship, but in determining when and where a vessel can activate its FTL drive. This should be related to how you envision FTL working.

For instance, a wormhole or alien jump gate is likely to be located beyond the last planet of the solar system. Why? Maybe because of deadly radiation produced by the wormhole, or because the mysterious alien architects didn't want their transport network to be discovered by accident.

If ships enter hyperspace through their own efforts, can they do it from the surface of a planet, or do they have to escape its gravity well? The release of energy needed to rip through the time-space barrier could be catastrophic on a planet's surface (to the ship as well), or the engines may simply fail to function.

These little details don't take much time to ponder, but they add another veneer of realism to your setting and provide a baseline for the players in terms of what they can and can't do.

dangerous journey through a nebula or meteor storm, or taking the long route around the obstacle.

If you're using a single solar system, you don't even need a map, as we'll see later.

FTL Travel

FTL (faster-than-light) travel is the only sensible way to get between different solar systems. FTL is, of course, make-believe, or at best highly theoretical physics. Einstein's famous equation means that objects like starships, even small ones, stand no practical chance of achieving speeds a fraction of that of the speed of light in the normal universe. FTL, however you decide to use it, respects Einstein's work by having starships travel in alternate dimensions or some sort.

Indeed, if you're using FTL, your first task is to think about how it works. We don't mean getting involved in the complex math, just the basic idea behind FTL. For instance, starships could enter a dimension known as hyperspace, open wormholes, use strange gates of alien manufacture which propel ships to incredible speeds, fold space, or a combination of the above. Why

do you need to know this? First, at least one player will ask. Second, flavor, flavor, flavor.

We looked briefly at distance and time in the *Sci-Fi Gear Toolkit*, but now we're going to expand them. So, how far and how fast can FTL ship's go in your setting?

- As far and as fast as you want. With this method, exact distances and timeframes are meaningless. The ship arrives when you say it does to suit the adventure. This is fine for a pulp or space opera game, where adventure takes precedent, but in a hard sci-fi game there should be some physical limitation to travel.

- A number of light-years per month, week, day, or hour equal to the ship's Acceleration or some fraction thereof. How fast a ship goes really depends on the scale of your setting. If your map spans 100,000 light-years, having ships travel at their full Acc in light-years per day still takes them 2000 days, or over 5 years, or cross the map.

This might be a "realistic" speed for crossing an entire galaxy, but unless you have a carefully planned space epic, the characters are unlikely to give up five years of their life just to see what's on the other side of the galaxy.

For example, the battle cruiser in the *Savage Worlds* rules has an Acceleration of 50 and can move 50 light-years in a time unit.

- Divide your galactic map into squares of no exact measurement. Each time period (typically a day or week), the ship can move a certain number of squares. Unless you have a really big map or small squares, it's best to use the ship's Acc divided by 10 or 50 (rounded down). Our battle cruiser thus moves at speed ranging from 1 to 5 squares per time period.

Slipstream, for example, has a map divided into squares of no particular distance. Because it's a pulp setting in a pocket universe, exact distances are fairly inconsequential. Ships have a Travel rating, and move that many squares per hour.

- Fixed distance/time. Maybe FTL doesn't conform to the normal laws of hyperspace physics, and all ships take the same time to go the same distance. This system works well with wormholes, folding space, or alien artifacts.

Each world might be linked by a fixed wormhole pair, with ships having to follow these routes. Some worlds may have multiple routes, whereas others have just one. Getting to a world which is "next door" on the map might involve following a convoluted route simply because there is no direct connection.

Alternately, maybe all ships can move 10 light-years, or some other arbitrary distance suited to your map, per day or week regardless of their size.

- Limited by time. With this system, an outside force, perhaps the build up of dangerous radiation

or the engines needing to recharge, limits how far a ship can travel.

For instance, ships might travel one light-year per hour regardless of their size or normal space Acceleration, to a maximum number of hours equal to the ship's Toughness (including Armor).

After this period, the ship must wait in normal space for an equal amount of time it spent in hyperspace to allow the radiation to discharge or the engines to recharge.

Regular Space

The distance between solar systems is huge. No ship moving at conventional speeds can hope to reach a neighboring star in the characters' lifetimes. However, using an FTL drive within a solar system requires nerves of steel and lightning reflexes to avoid overshooting the target. So ships use conventional engines to maneuver between local planets.

Ships still obey the laws of physics. Unlike a car, ships have to brake slowly. In a hard sci-fi setting, braking takes a great deal of time. You can't just slam on the brakes and stop (unless you want the crew killed by the high g-forces involved). As such, spaceships spend half the journey accelerating and the other half braking. Of course, calculating this becomes an object lesson in math, so it's best to ignore it and use the ship's base Acceleration as a guide to calculating time.

As mentioned under making star maps, you don't have to worry about exact distances between worlds, but you will need a basic idea of how far apart worlds are, if only in abstract terms. One easy way is to calculate everything in astronomical units (AU), or the distance between the sun and Earth. It's best to round liberally, however, when using such a system.

Here's an example of our own solar system expressed in rounded AUs.

Planet	AU
Mercury	0
Venus	0.5
Earth	1
Mars	1.5
Jupiter	5
Saturn	10
Uranus	20
Neptune	30
Pluto	40

To determine how long it takes to get between two worlds in days, subtract the larger distance from the smaller, then multiply the result by 1d6. For instance, the a journey from Pluto to Earth takes 39 x 1d6 days.

Trading Ship

The sample starships in the *Savage Worlds* rules are military craft, designed for combat rather than mercantile activities. There's examples of civilian and military ships in the *Sci-Fi Gear Toolkit*, but in case you don't have that book, here's an example of a small merchant ship suitable for a character group.

Small Freighter

Typically owned by independent merchants or small freight companies, these vessels are often poorly armed unless operating in spacelanes known to be haunted by pirates.

Acc/Top Speed: 150/FTL; **Climb:** 35 (in atmosphere); **Toughness:** 27 (12); **Crew:** 6; **Size:** Medium; **Cost:** \$10.45M

Notes: Atmospheric, Cargo Bay (7 spaces + 2 spaces of concealed cargo), Spacecraft

Weapons:

- Light missile battery (Range 200/400/800; Damage 4d6; ROF 1-4; AP 6; Heavy Weapon) (no reloads)

Use an Acceleration of 100 as the default speed for calculating time. For ships with an Acceleration of 50, double the time. Ships moving at 150 divide the time by 1.5, and those with 200 take half the time.

Costs & Fees

Although *Savage Worlds* is about high adventure and character interaction, you might wish to add some basic finance to your game. These guidelines are a quick way of determining how much money characters have to spend to survive on a weekly basis, as well as a look at how much they can earn by taking jobs.

Wages

Characters running their own ship don't usually need wages—they earn money through adventures or trading. But what if they hire Extras as crew, or work for an NPC? Here's a quick system of calculating wages for the most common roles for character. For convenience, wages are based on a weekly cycle.

Job	Wage
Pilot	\$500 x Piloting die
Engineer	\$350 x Repair die
Gunner	\$200 x Shooting die
Medic	\$400 x Healing die
Steward	\$250 x Persuasion die
Military Officer*	\$300 x Fighting or Shooting die
Military Grunt*	\$100 x Fighting or Shooting die

* These roles cover marines, infantry, mech pilots, tankers, and mercenaries. Use the highest of Fighting or Shooting.

Fuel & Provisions

Do starships need fuel and provisions in your setting? It's easy to gloss over such considerations in favor of the story. Maybe ships used advanced fusion reactors running off water, or scoop hydrogen from space as they fly, constantly recharging their fuel cells. Perhaps they use antimatter drives that need no replenishment. However, if you're running a gritty game you might want to introduce costs. Of course, the characters also need a way of earning money if

they hope to maintain a starship.

How long can a ship remain in space before it needs to be refuelled or replenished? That's a tricky question, and one only you can answer. If all FTL travel takes a week, regardless of distance, then use a week. If you're using a single solar system, then maybe a month or more. Pick a time frame suited to your setting and make sure it allows FTL ships to actually get somewhere before the fuel runs out.

Here's some example costs to use as a guideline.

Item	Cost
Refuelling	\$10 per point of Acceleration per week.
Provisions	\$20 per crew per week. This includes food, air scrubbers, toiletries, and such like.
Docking fees	\$100+ per day.
Annual maintenance	0.1% of the ship's value.

Repairs

At some point the characters are likely to get involved in a fight. Even if they avoid space combat, there's always the risk a big rock will smash into their ship sooner or later. When it does, they'll need to get the ship repaired.

In a space pulp or space opera game, you might allow the crew to make their own repairs. Repairing a non Critical Hit requires a Repair roll at -2, with additional penalties equal to the number of Wounds the ship has taken (and the engineer's skill if applicable). Repairing a Critical Hit requires a Repair roll at -4, plus Wound penalties. Assume each wound or Critical Hit takes one day to repair.

For grittier settings, repairs can only be made at proper service facilities. As discussed under spaceports, only certain types of spaceport can repair wounds and Critical Hits. Each wound or Critical Hit repaired costs \$10,000 and takes 1d6 days. The more wounds a ship has, the longer it takes to fix.



Time & Calendars

Aside from the obvious problem of language barriers, characters traveling between worlds have to contend with one

other important factor—time. We don't mean time travel, just the regular passing of minutes, hours, days, and weeks. Imagine the following scenario, the characters just go to bed after a long day when their ship emerges from hyperspace in a new star system. Hailing the planet below for landing clearance, they find it's only just turned dawn. Bang goes the body clock and welcome to hyperspace jet lag.

Not all worlds rotate at the same frequency either. A day on Earth may be 24 hours, but a day on Jupiter (or a space station in geostationary orbit) lasts just 10 hours. Worse still, Venus takes over 240 days to complete a single rotation. As well as throwing out body clocks, it causes confusion when referring to time periods. Arranging a meeting for a week's time on Venus could mean waiting over 5 years. Okay, that's an extreme example, but you need to decide if time matters in your campaign.

The easiest thing to do is ignore it. If the characters or NPCs talk about hours, weeks, or months, assume them to be talking in Earth terms the players understand. You can explain it away using a standard galactic calendar adopted out of convenience, or because one central authority controls the entire galaxy, or explain to the players in advance that keeping track of time on 100+ worlds isn't really important to the high-octane adventures you have planned.

If you've got a single world setting other than Earth, sure you can create a different number of hours in a day. Anywhere from 20 to 30 is reasonable, and over time humans could adapt to these hours. You don't even have to keep to standard length weeks, months, or years if you've only got a single world to focus on.

Having a calendar, even if you use Earth's, allows you to plan ahead, to set adventures based on dates rather than people or places. It creates extra realism for your setting and helps your players to become immersed in your setting.

To create a calendar, start with the weeks and work up. A reasonable week should be between 5 and 10 days long. Once you know the length of a week, you begin work out the months. First decide how many weeks make a month. The longer the week, the shorter the month should be, and vice versa. Last, work out how many months there are in a year. Earth has twelve, divided in four seasons. No matter how many you go for, having a multiple of 4 makes it easy to define when seasons begin and end.

If you want to name your days and months, don't feel constrained to use those of Earth. Be creative and it will add to the atmosphere of the setting.

Finally, multiply the number of days by the number of weeks in a month, and then multiply the number of months in a year to get the total days in a year.

Example Calendar

The *Necropolis Savage* Setting has a single world and makes use of a calendar based only in part on that of Earth. Here's an extract to show how it works

Though Salus has a 24-hour rotation, it has a 1,534-day year. The earliest calendars were simply an extension of Earth's own, with months ranging from 127 to 130 days in length and keeping the same names as had been used for centuries. Following the Third Reformation, the Church drastically altered the calendar.

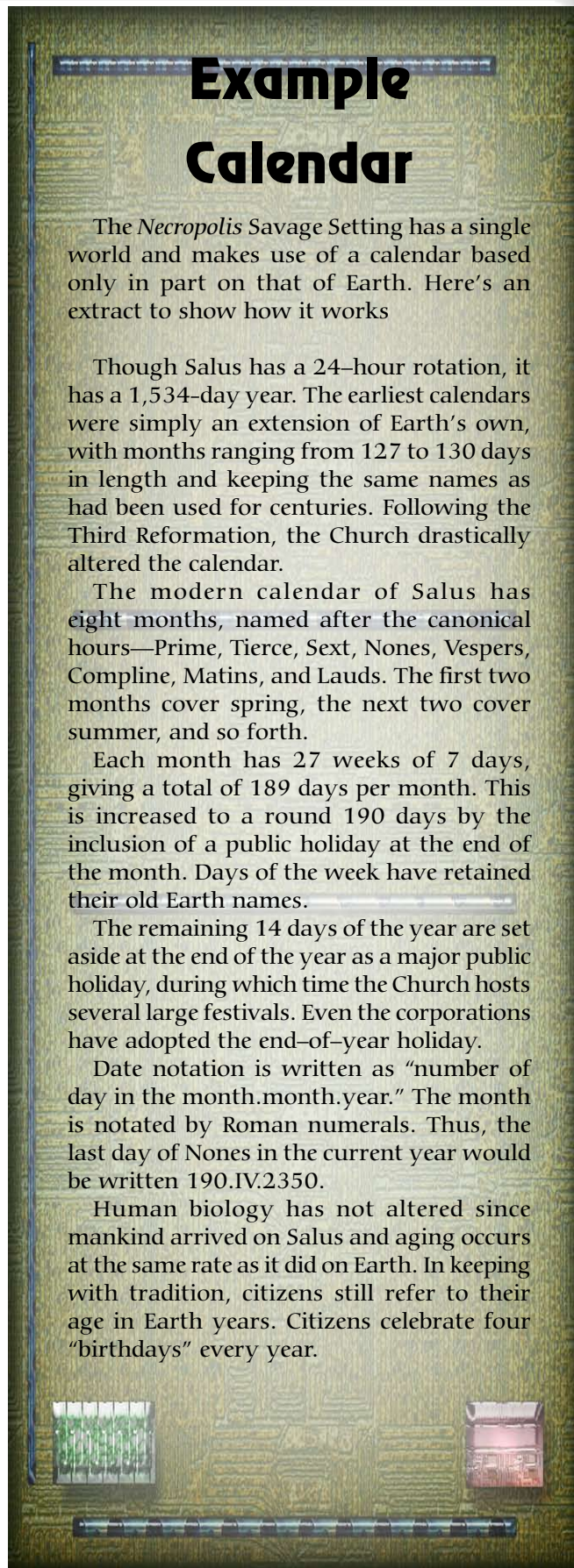
The modern calendar of Salus has eight months, named after the canonical hours—Prime, Tierce, Sext, Nones, Vespers, Compline, Matins, and Lauds. The first two months cover spring, the next two cover summer, and so forth.

Each month has 27 weeks of 7 days, giving a total of 189 days per month. This is increased to a round 190 days by the inclusion of a public holiday at the end of the month. Days of the week have retained their old Earth names.

The remaining 14 days of the year are set aside at the end of the year as a major public holiday, during which time the Church hosts several large festivals. Even the corporations have adopted the end-of-year holiday.

Date notation is written as "number of day in the month.month.year." The month is notated by Roman numerals. Thus, the last day of Nones in the current year would be written 190.IV.2350.

Human biology has not altered since mankind arrived on Salus and aging occurs at the same rate as it did on Earth. In keeping with tradition, citizens still refer to their age in Earth years. Citizens celebrate four "birthdays" every year.



Starship Combat

While a gritty cyberpunk or near-future style game set on Earth may not require guidelines for starship combat, a large proportion of sci-fi settings are likely to have ship-to-ship combat. This chapter looks at expanding the existing vehicle rules for use in space.

These guidelines make no attempt to portray space combat in all its three-dimensional, laws of physics glory. It's Fast! Furious! and Fun!

Range & Scale

Take a look at the sample starships in the *Savage Worlds* rules and the *Sci-Fi Gear Toolkit* and you'll see that distances appear to be quite short. Indeed, they are on par with those of ground vehicles.

While at first this may seem strange, given just how big space is, there are two ways of thinking about it. First, most television shows set in space conduct combat at short ranges. Range is usually measured in thousands rather than hundreds of thousands of miles. Calculating where a ship will be in ten seconds, when the weapon finally covers the vast distance between the ships, would make combat very impractical unless missiles were the only weapons. It's also not very dramatic to show two pinpricks of light blasting away at each other over thousands and thousands and miles.

Second, the scale is designed for tabletop use. There is nothing to stop you saying that each game inch in space represents a hundred yards or even a thousand miles rather than the standard 2 yards. Just because the rulebook says 1" = 2 yards, it isn't written in stone and no one is going to knock your setting because you increased the distance. Just make sure that movement and weapon ranges change to the same scale to keep things balanced.

Sensor Range

Although starships may measure hundreds of yards, they are tiny objects in space. Rather than relying on the naked eye, starships use sensor arrays to locate other vessels. Sensors can detect ship far beyond weapon range. When this happens, the two crews have limited choices—they can ignore each, head towards each other to engage, or one of them can start a chase.

If one ship is attempting to catch another, the pilots make opposed Piloting rolls. The crew can help by making a group Piloting roll (see Cooperative Rolls in *Savage Worlds*). Each attempt takes four hours. If the pursuer wins with a raise, he has brought his foe to extreme weapon range. If the target wins with a raise, he has escaped. All other results mean the chase continues.

Close Quarters

Once the ships are at close quarters, the standard chase rules apply.

Savage Worlds lists three different range increments for space battles—50" for space fighters, 100" for capital ships, and 200" for planetary defence fleets. Which one should you use if you have mixed starships? To make things easier, use the shortest range increment. So, a battle between a destroyer (a capital ship) and five fighters would use the 50" bracket.

Size

As introduced in the *Sci-Fi Gear Toolkit*, starships have a size rating of Small, Medium, Large, Huge, or Gargantuan, exactly as per monsters. The same

rules for bonuses and penalties to attack rolls against starships of different size apply as normal. For instance, a battleship (Gargantuan) would suffer a -6 penalty to attack a fighter (Small). Conversely, the fighter gets a +6 bonus.

This does not apply to missile locks, but it does apply to unguided torpedoes, and all other weapons.

Guns to Bare

Can a massive battleship bring every weapon system it has to bare against a lone starfighter in a single combat round? How deadly do you want starship combat to be? If you want a full-frontal assault style game or a more cinematic feel, then sure, why not.

If, however, you're after a more "realistic" feel, then any ship of Medium or Large size or larger can only bring half its weapons to bare on a single target in a combat round and a Large or Gargantuan ship just one-quarter. If you're going to adopt this rule, you need to make sure that multiple weapons of the same type are listed in multiples of two or four.

For the Chase rules, assume that a spinal mounted gun can be brought to bare only with a successful Trail maneuver. For the vehicle combat rules, the target has to be in the ship's front arc (45 degrees to either side of the ship's front).

Weapon Arrays

Starships, especially bigger vessels, may carry multiple weapons of the same sort. If you want to have them linked to fire in units, say as a dual energy cannon or quad mass driver, here's a quick and easy solution.

All weapons must be of the same specific type, only cannons may be linked (whether ballistic or energy), and no more than four weapons can be grouped into a single array.

Damage increases by one die per weapon in the array, with no maximum. So a four-gun 20mm mass driver array, for example, causes 6d8 damage instead of 3d8. AP remains unaltered—the weapons are striking a more concentrated area, but each weapon is no more powerful than if it were fired alone.

Only one Shooting roll is required to fire the array. Either they all hit, or they all miss. Weapons in an array with a ROF greater than 1 must all fire the same number of rounds.

Hazards

Flying through an asteroid field certainly spices up space combat, but it's also dangerous. Asteroid fields should be given a rating of Light, Medium, or Heavy,

as per the standard rules for Cover. Indeed, asteroid fields make it hard to get a clear weapon lock and all Shooting rolls suffer the appropriate penalty. The same penalty applies to Piloting rolls, including those made to get a missile lock.

In addition, all asteroid fields count as Thick Obstacles. Asteroid fields normally rotate in a stable pattern, as opposed to the swirling mass of colliding rocks shown in the movies. If a collision occurs, treat the asteroid as a Small ship (see Ram below).

Maneuvers

The following maneuvers may be performed in space combat and use the Piloting skill.

Ram (Opposed): Starships in combat have no theoretical Top Speed—they simply Accelerate at their listed Acc each round. This means, in theory, they can be moving thousands of game inches per combat round. Even a battleship colliding with a tiny fighter at these speeds is suicidal using the current game mechanics.

Instead of rolling for damage, assume the smaller vessel is completely destroyed. The larger vessel suffers 1 Wound per Size category of the smaller ship. So, a Small ship inflicts one wound, a Medium ship two wounds, and so on. Roll for Critical Hits as normal.

You may wish to rule that fighters ramming larger ships have a chance of not causing any severe damage. This rule stops four fighters (and their suicidal pilots) being used to take out a massive battleship. A fighter ramming a larger vessel must roll a d6. Against a Medium ship it inflicts a wound on a roll of 3-6, against a Large ships it needs to roll a 4-6, a Huge ship a 5-6, and a Gargantuan ship requires a 6.

If the vessels are the same size, both ships suffer 1d4 wounds. Check for Critical Hits normally.

Obstacles (-1 or more): Maneuvering through an asteroid field at high speed is no mean feat. If you're using the Chase rules, the standard rules for Obstacles apply. Otherwise, the pilot must make a Piloting roll each round, with a penalty equal to the Cover the asteroid field provides, or suffer a collision. Use the Ram rules and treat the asteroid as a Small ship.

Tight Turn (Variable): Capital ships are not designed to turn quickly. Small or Medium vessels suffer no penalty for performing this maneuver. Large and Huge ships suffer a -2 penalty, and Gargantuan ships suffer a -4 penalty.

Out of Control

If a Piloting roll is failed (except when getting missile lock), the ship goes out of control and tumbles in three dimensions. How it affects the crew depends on the technology involved in your game.

New Edges

If starship combat is important to your setting, you might want to introduce some new Combat Edges. Here's two examples..

Target the Engines

Requirements: Seasoned, Shooting d10+

When the captain orders, "Target engines only," he calls on this character. When rolling on the Critical Hit Table, the character may adjust the result by one point in whichever direction he finds most favorable.

Expert Rammer

Requirements: Veteran, Piloting d10+

Whereas most pilots avoid ramming other vessels, the character has become a specialist. When ramming a vessel the same size or smaller than the ship he is piloting, his craft suffers one less wound. Should he ever decide to ram a larger vessel, he inflicts one extra wound. In a Small craft he would cause an automatic wound and roll to see if a second wound was inflicted.

In a setting with no antigravity system, crew members are usually strapped into their chairs to avoid floating away from their console. The entire crew counts as being Shaken because of the sudden spinning.

If you have antigravity systems on starships, the crew are likely to be sitting or standing without restraints. All crew suffer 2d6 damage from being thrown about. If the ship has Extras board, 1d6 of them suffer a wound.

Critical Hits

The standard Critical Hit table doesn't fulfill every requirement in starship combat and requires minor tinkering to bring it into line with the dangers of space combat. Replace the standard table with the one below, or one of your own design.

2d6	Effect
2	Cargo/Ship Bay: The ship's cargo bay or fighter launch bays have been hit. Roll a d6 if the ship has both. Odd means the cargo bay, even the fighter bays. A cargo

hit destroys half the ship's cargo. A fighter bay hit prevents half the fighters from being launched or landed.

3 **Engine:** The engine has been hit. The first hit halves the starship's Acceleration. A second hit leaves the ship moving on its current heading at its current speed until repaired.

4 **FTL Drive:** The starship's FTL engine has been damaged. The first time it is hit, all journey times are doubled. The second hit disables the engine completely.

5 **Controls:** Each hit to the controls causes a cumulative -2 penalty to Piloting and Shooting skill rolls (using the ship's weapons).

6-8 **Hull:** The starship suffers a hull hit with no special effects.

9-10 **Crew:** Crew Critical Hits inflict 1d6 casualties per Size category of the ship, scattered randomly among all crewmen. Remove that many crew immediately. They may recover after the fight in the normal method. If multiple dice come up the same number, a random player character or other named personality was hit as well. Subtract the Armor value of the ship from the damage.

11 **Weapon:** A random weapon is destroyed and may no longer be used. If the weapons are linked in an array, the entire array is destroyed. If there is no weapon, treat this as a Hull hit instead.

12 **Chain Reaction:** The starship begins to explode. All crew must make an Agility roll to reach an escape pod before the final explosion. Those who fail are killed.

Boarding

Starships operate in a completely different manner to sailing ships of old. For a start, they move at speeds reaching into tens of thousands of miles per hour. Second, they operate in a three dimensional space. Boarding actions cannot be attempted unless the target ship has had its engines (or crew) destroyed.

The chasing ship's pilot needs to make a Piloting roll to match vector and speed. If the roll fails, the ships scrape together and both vessels suffer a wound. On a critical failure, treat it as a ram maneuver.

Even when the ships are connected, the attackers still need to gain access to the other ship. Cutting torches, Lockpicking rolls, and thermite charges to melt through the hull are all possible options. Once inside, they have to deal with any crew, fighting room by room, corridor by corridor.

Teleporting

Your setting may be hi-tech enough to have teleporters, or there might be characters with the *teleport* power. Sooner or later, someone will try teleporting over to an enemy ship as a boarding action.

Teleporting is dangerous. Not only is there the risk of colliding with an object, but sudden changes in velocity can cause the teleporter serious problems. Teleporting into a ship moving even 50 mph faster than the one you left means there is a 50 mph difference in your momentum when arrive. In effect, the nearest wall will “rush toward” you at 50 mph.

In game terms, it’s easiest to assume that teleporters, whether devices or powers, do not function unless the speed of the departure and destination are identical.

To use the *teleport* power, the two vessels must have the same position card, and the pilot of the vessel holing the teleporter must succeed in a Force maneuver with a -2 penalty to get close enough. Failure results in a scrape and a wound to each vehicle. A critical failure is treated like a ram.

Remember, *teleport* has a base range of just 30 yards (15”). Just because you may have altered the scale of starship combat doesn’t mean that the range of powers increases likewise.

Using a starship teleporter (introduced in the *Sci-Fi Gear Toolkit*) works slightly differently depending on the range of teleporters in your setting. For instance, if the teleporter has an effective range of 300” on whatever starship scale your using, and you’re using 100” range increments, the vessels have to be within 2 cards of each other (the same card counts as 100”, one card different is 200”, and so on). So, if the target is on a six, the pursuer can be on anything from a 4 to a 7. The pilot still needs to make a Force maneuver to match velocity and vector, however

Counter-Boarding Tactics

While boarding a starship is dangerous in its own right, the crew can perform a few sneaky tricks to make life even worse for attackers. Sealing doors is certain to slow boarders progress through the ship, but it doesn’t cause much harm.

Anti-Teleport Measures

In a setting where teleports are commonplace, it is very likely that crews would know tactics for thwarting them, in addition to tight turns and varying speed. One way is to scatter objects around empty spaces, thus forcing a teleporting character to hit an obstacle and suffer appropriate effects (see the *teleport* power for the effects of this).

Another possible method is to leave a big open space, but remove all the air. The teleporting character thus appears in a vacuum and suffers the effects of explosive decompression (see p.20).

Pressure “Shotguns”

Pressure can also be used to thwart more traditional boarders. One tactic is to leave large areas of the ship at very low pressure while over pressurizing key adjacent areas. The adjacent areas are then filled with small, sharp objects. When the door between the two areas is opened, the sharp objects are blown toward the low pressure area, acting like a giant shotgun.

Use a Cone Template for the area. Any character under the template may make an Agility roll at -2 to avoid suffering 3d6 damage.

If the boarders are wearing spaceuits, this is likely to shred the suit and destroy its integrity. You can then use the following tactic as a follow up action.

Suffocation

Another pressure-based tactic is to seal the doors around an area, then pump the air out of the area once boarders are inside. Unless they are in sealed suits, this will lead to suffocation.

Obstacle Toughness

The table below expands the regular Obstacle Table for walls and door on a starship.

Armor	Obstacle
+8	Interior wall or door
+15	Interior bulkhead wall or pressure door



Major Players

Before you sit down and start writing *Savage Tales* and *Plot Points*, think about the major players for your setting.

Major players may be organizations or individuals. Some may be allies of the characters, while others will work against them. Each should have some notes on how they interact with the setting, how they affect the *Plot Point* (if they do), and have some stats for typical members or noteworthy individuals.

Creating interesting individuals requires you to throw together some traits and Edges appropriate to the character. One way to detail an organization, especially one characters may join, is to create a new *Professional Edge*.

Here's a list of generic organizations and major characters typical to most sci-fi settings.

- Major corporations (often called megacorporations or zaibatsu, depending on the style of setting).
- Bounty hunter guild.
- Planetary or galactic military forces, especially space navies.
- Cabal, guild, or governmental agency of psionics.
- Mysterious and ancient beings who talk either in riddles or innuendo.
- Law enforcement agencies, especially secret agencies with agendas not necessarily in keeping with those of their government.
- Guild or company of explorers, searching out new worlds and resources.
- A tyrannical ship's captain.
- A rogue artificial intelligence.
- Corrupt planetary governors.
- Smuggling ring with agents working across the galaxy.

- A major diplomat or a diplomatic corps.
- Order of psionic knights devoted to peace and unity among all races.
- Religious group.
- Space pirates, especially when secretly in the employment of a corporation or government.

Example

Here's an example write-up of an organization and how it can be used, to give you an idea. This particular group could form the basis of an entire *Plot Point*, or just an extended *Savage Tale*.

Station 7

Station 7 is a secret organization in league with a race of aliens. The agency members are paid by the aliens to deliver live humans to them for use in biotechnology items ranging from computers to weapons.

Agents generally kidnap only the poorest members of society, those who will not be missed or who it is assumed have simply moved on. Their cargo is delivered to a drop-off point on the edge of civilized space, far from the eyes of prying governmental agencies and corporations.

Many of the agents have biotechnology implants, a gift from their masters, which makes them deadly foes.

Adventure Seed: The characters are called upon to investigate the disappearance of down and outs from a space station. They discover that humans are kidnapping the lowest dregs of society, and believe them to be involved in a slavery ring. During the

investigation, they learn the name of the organization, and discover it's links to the aliens.

Professional Edges

As the rulebook says, Professional Edges are more than just bonuses. Each one represents a vocation gained after years of training. Those presented in the rulebook are, out of necessity, generalized—they have to cover a wide range of genres. When focusing on one particular genre, however, we can also focus the Professional Edges.

If a player wants to build a space cop, you can let him take the Connection Edge to represent his backup, and he's done. How about playing a corporate troubleshooter? Just use Investigator.

But what if these professional bodies are more than just a set of bonuses. What if they represent an organization with a defined purpose? Is there more than one space cop agency in your setting? Do corporate troubleshooters receive any additional powers?

Other Professional Edges can be vocations not covered in the rulebook. Can a character begin the game with a starship? He can if there's a Professional Edges that let's him. If your game has a strong trading element, then creating a Merchant Edge is a good idea.

Professional Edges can also be the only way of getting other Edges. For instance, you have to become a member of the Psionist Guild to learn Arcane Background (Psionics). Maybe certain Combat Edges, such as the Improved versions, require membership in a military academy.

New Professional Edges designed solely for your game allow you to add interesting social and political elements to your setting. They're also ripe for using to generate adventures.

Designing New Edges

If you've decided to create a batch of new Professional Edges, you need to decide what they're going to do. New Professional Edges don't have to be reinventions of the wheel. A few simple tweaks here and there, the addition of some background, and maybe an extra bonus, or drawback, can turn even the most generic Edge into something new.

Name

Every Edge needs a name. In general, it should sum up exactly what the Edge does. The Thief Edge, just by the name, gives the player a good idea of what he'll

get from taking the Edge without having to read it.

You can still be descriptive, however. A Psi Knight Edge is evocative and promises more than just simple knighthood. Just make sure the name has some link to the bonuses the Edge grants.

Maybe the knights gain the Arcane Background (Psionics) Edge and members receive a laser sword.

Requirements

Professional Edges require higher trait requirements than most other Edges. When assigning requirements, remember that taking a Professional Edge is a result of dedication and training. If you set the requirements too low, especially if the rewards are high, then don't be surprised if all your characters take the Edge. Likewise, if the requirements are high and the payback low, no one will take it. There is no magic formula to balancing requirements, but a few traits at d8+ is a good start.

If you are using multiple races, Professional Edges can be tied to one particular race. Maybe all Nightstalker Assassins are Rakashan for example, or perhaps only humans can be Corporate Troubleshooters. You may need to come up with some good reasons why this is so. It all adds to the depth and realism of your setting.

Bonuses

Characters take Edges to get bonuses. Typically a Professional Edge grants bonuses to skills associated with the profession. You wouldn't expect a space smuggler to get a bonus to Healing or Lockpicking, but he could reasonably expect to get one to Piloting or Streetwise.

Typically, a Professional Edge should grant a +2 bonus to no more than three skills. Try to avoid giving blanket bonuses to combat skills, however. An Edge bestowing a +2 to Fighting is effectively giving the character a bonus when using all types of weapons.

If you're handing out combat bonus, restrict them to certain types of weapon. A psi knight may get +1 with a laser sword to reflect hours of practise, whereas a naval gunner might get a bonus to using starship weapons.

An alternative is to allow the character to ignore penalties instead or grant a bonus in another way. A naval gunner may get the benefits of Steady Hands in space, but not with vehicles or uneven surfaces. The psi knight may be able to buy certain Combat Edges at a lower Rank to represent his training.

Professional Edges can also be used to hand out free equipment. A psi knight may get a laser sword. A smuggler might be allowed to start with a small starship and a crew.

Drawbacks

Professional Edges can have drawbacks, but these should not outweigh the bonuses. The Noble Edge gives lots of bonuses, but also demands the character spend time governing his lands. You just need to ensure the drawbacks are not oppressive.

There is nothing wrong with giving psi knights the Heroic Hindrance to represent their struggle to uphold codes of decency in the galaxy, for example, but it does limit the character's moral choices.

Instead, you could state that the knight must give succor to those in need, unless they are inherently evil creatures. If the character refuses to give aid, maybe their order strips them of their position until they atone.

Drawbacks can include being tied to a particular planet or duty, but again care must be taken. Designing a group of space cops sworn to protect one world gives the character a purpose and is full of adventure possibilities, but what if the character then decides to go wandering and neglects his duties?

If the Edge forces the character to stay around the planet, then make sure the majority of adventures are set there. If he wants to go wandering, have him seek permission from his superiors. There's an adventure hook right there—the character can go after he's completed a minor task, or perhaps he's ordered to follow a known felon off-world.

Drawbacks can also be tied into the bonuses. A corporate troubleshooter, though powerful within his organization, owes loyalty to his paymasters and has no jurisdiction outside of their holdings. A smuggler may get a ship, but he still has to pay his crew or they'll leave.

Acquisition

Decide if there are any restrictions on how a character can take the Edge after character generation. Becoming a smuggler might only require the character to start shipping illegal cargoes and follow the profession for a few months, whereas becoming a psi knight requires extensive testing and some psionic talent.

Of course, a character can call himself a smuggler or a psi knight without fulfilling any requirements at all, but he wouldn't get the bonuses.

Background

Unique Professional Edges, specifically those based around an organization, should have some background text associated with them, if only to let the player know more about the organization.

You don't need to write a complete history, of course, but there should be enough detail so the

player knows what is expected of him and how the organization functions.

Altering Edges

To add more flavor to your setting, you can rename existing Professional Edges, keeping the rules the same. For instance, rather than using Mentalist, you could call it Psi Duellist. All of a sudden it has greater implications, and adventure potential, than just being a skilled psionist.

Examples

Here's some generic examples of sci-fi Professional Edges for you to use as the basis for your own creations.

Corporate Troubleshooter

Requirements: Novice, Smarts d8+, Investigation d8+, Streetwise d8+

If corporate security forces are the equivalent of the police, corporate troubleshooters are the FBI. Their sole role is to sniff out industrial spies, retrieve lost secrets, and ensure that any criminal act within or against the corporation is discovered.

They add +2 to Investigation rolls, and to Notice rolls when searching through evidence. In addition, they carry the full weight of the board of directors, and receive +2 to Intimidation, Persuasion, and Streetwise rolls when dealing with employees of their corporation.

They have no jurisdictional powers outside the holdings of their company.

Cyborg

Requirements: Novice, Spirit d8+, Vigor d8+

The character has a greater tolerance for cyberware. He may treat his limit die as one step higher for the purposes of how much cyberware he may place in his body. Guidelines for cyberware were introduced in the *Sci-Fi Gear Toolkit*.

Explorer

Requirements: Novice, Smarts d8+, Vigor d6+, Investigation d8+, Notice d8+, Survival d6+

Explorers are usually interested in investigating the ruins of ancient civilizations and discovering what secrets the race left behind.

They gain +2 to Investigation and Notice rolls from years of crawling around old ruins and researching

legends. In addition, they are used to the rigors of nature. They have +2 to Survival rolls.

Mech Academy Graduate

Requirements: Novice, Agility d8+, Smarts d6+, Driving d8+, Knowledge (Battle) d6+, Shooting d8+.

The character is a graduate of an elite mech academy. He receives a +2 bonus to Driving and Shooting when operating a mech. He also gains +2 to Knowledge (Battle) when leading mechs into combat. Guidelines for mechs are in the *Sci-Fi Gear Toolkit*.

Merchant

Requirements: Novice, Smarts d8+, Persuasion d8+, Streetwise d6+

The character understands the mercantile process and the laws of supply and demand. How this Edge works varies with the mercantile rules you have created for your setting. If you are using the quick system presented on page 33, the character gains +2 to Streetwise rolls when buying or selling cargo. In addition, if he makes a successful Persuasion roll, the number of units available for purchase or sale increases by 1d6.

Naval Academy Graduate

Requirements: Novice, Smarts d8+, Spirit d6+, Piloting d6+, Repair d6+, Shooting d6+

Naval academy graduates are generalists when they apply, and specialists when they graduate. Graduates must pick a specialty from the choices below. A character may take this Edge more than once, but must pick a different specialty each time.

Bridge Crew: The character has learned how to fly a ship. He has +2 to Piloting rolls. In addition, his Wild Die for Piloting rolls increases to a d8.

Command Staff: The character has trained to be a command officer. He has +2 to Knowledge (Battle) rolls involving space combat. In addition, he may spend one of his bennies each round to re-roll any ship-based skill roll made by a member of his crew.

Engineering: The character receives +2 to Repair rolls. He may also take the Mr. Fix-It Edge without needing to meet the Weird Science requirement.

Gunnery: The character adds +2 to Shooting rolls and has the Steady Hands Edge when firing starship weapons.

Psi Knight

Requirements: Novice, Arcane Background (Psionics), Fighting d8+

Psi knights are a quasi-mystical order of psionics with a distinctly militant bent. They are not interested in conquest, and serve to protect those whom governments would rather ignore, such as the poorest members of society.

Psi knights receive +1 to Fighting rolls with a laser sword and receive a laser sword—the symbol of their order. In addition, they may buy the Block, Improved Block, Combat Reflexes, Frenzy, Improved Frenzy, Improved First Strike, Quick Draw, Sweep, and Improved Sweep Edges at one Rank lower than the usual requirement states.

Because psi knights are dedicated to protecting the weak, they have the Heroic Hindrance. You could also work out a code of conduct that members of the order must follow to benefit from this Edge.

Psi Police

Requirements: Novice, Arcane Background (Psionics), Mentalist, Investigation d6+, Psionics d10+.

Psi police are an elite branch of a law enforcement agency. As well as using standard police methods, they make use of the psionic powers. If your setting has an organization of psionics, psi police may just as likely be internal security, making sure psionics don't abuse their power.

Psi police have the same legal powers as regular police. They have the Connections Edge with regard to other law enforcement individuals in their organization (whether that be regular police or fellow psi police).

In addition, psi police are taught the *puppet* power at Novice rank to help apprehend criminals. Psi police must take *puppet* as one of their starting powers. They must also take one from *boost/lower trait, bolt, detect/conceal arcana, entangle, and stun*.

Ship's Captain

Requirements: Novice, Smarts d8+, Command.

By fair means or foul, the character has acquired his own starship. If you're using the *Sci-Fi Gear Toolkit*, use the small merchant ship. Otherwise, the character has a small ship requiring a crew of 5, armed with two weapons of the GM's choice. Cargo capacity is 6 spaces.

If you plan on giving the characters a ship as part of the campaign, it is up to you if this Edge is required or not.

The character may also have a crew of Extras if he wants, but they require paying. Depending on the type of campaign, these may be regular ship's crew or pirates. Sample stats can be found in the *Sci-Fi Bestiary Toolkit*.

Psionics

This chapter takes a look at the Arcane Background (Psionics) Edge, and presents some ideas on how, with a few minor tweaks, you can produce a variety of psionic types for your setting.

There are two key ways of achieving this. The first is to alter the Arcane Background itself. The second is to add new Arcane Professional Edges.

Arcane Background

Unlike fantasy magicians or priests, psionics draw their power from their own minds. Through thought alone they can alter their own bodies, control the minds of others, and create physical manifestations. As such, all psionics have the same Arcane Background (Psionics). Exactly what they can do is based purely on their powers and the trappings they use.

What this section looks at is redefining the Arcane Background Edge into a narrower focus. Thus, rather than just having psionics, your setting might employ telepaths, telekinetics, electrokinetics, war psionics, and such like.

Why should you bother with individual arcane backgrounds? After all, most gamers have the imagination to come up with a nifty concept for an psionist. Well, it allows you to shape psionics to fit the vision of your world. What if there is only telepathy (and a few other linked powers)? Maybe you only want telekinetic characters, but think limiting them to a single power is rather lame.

Having different types of psionics is also a selling point for your game. Why just psionics when you can have electrokinetics, biokinetics, telepaths, oracles, and more? You could even have a setting where everyone

is psionic, in which case the great choice you provide, the more exciting the players will be at having psionics forced upon them, especially if they really wanted to play a different sort of character.

Making it Different

You might want to give your the Arcane Background advantages and disadvantages to reflect how it works. The boons and banes don't have to be sweeping changes and may not even affect the basic game mechanics. All psionics is subject to brainburn—one doesn't play with fire without the risk of getting burned. Don't worry about this for now, as we'll be looking at backlash and how it applies to altered arcane backgrounds in more detail later (p.51).

Here's some examples.

- Assisting in casting rolls with others as a Cooperative Roll to produce more powerful effects.
- Sharing of Power Points between psionics who are touching.
- Increased duration or range if extra time is spent casting.
- Has more Power Points at the benefit of starting with fewer powers.
- Ability to alter damage, duration, or range by paying more or fewer Power Points.
- Additional benefits for scoring multiple raises.
- Can reduce Power Point cost by taking penalties to the arcane skill roll..
- Can use own Power Points or arcane skill to power magic items.
- Requirement for material components.
- Must know the target's name.
- Bonuses or penalties to arcane skill in certain

environments or under certain conditions.

- Increased Power Point recharge under certain conditions, such as when sleeping, or in specific areas, such as an electrokinetic being near a power source.
- Ability to tap people or places for Power Points.

Examples

Biokinesis

Arcane Skill: Psionics (Smarts)

Starting Power Points: 15

Starting Powers: 3

Spell List: *Arcane Skill:* *Armor, boost/lower trait, burrow, detect/conceal arcana (conceal only), environmental protection, fly, greater healing, healing, invisibility, light, quickness, shape change, smite, speak language, speed, and teleport.*

Biokinesis is the psionic manipulation of one's own body. As such, all powers have a Range of Self. For instance, while *speak language* still requires the psionist to touch the person he wishes to talk with, the power cannot be cast on another person to allow them to join in. *Teleport* works as normal, but the character cannot *teleport* other people against their will or even take passengers.

Biokinetic characters can burn their bodies to generate Power Points. They have the Soul Drain Edge for free.

Pyrokinesis

Arcane Skill: Psionics (Smarts)

Starting Power Points: 10

Starting Powers: 3

Spell List: *Arcane Skill:* *Armor, barrier, blast, bolt, burst, deflection, elemental manipulation (fire only), environmental protection (fire only), and light.*

Pyrokinetic characters manipulate fire with their minds, and use sources of fire to invoke more potent effects. For every d10 damage rating of a fire within Smarts game inches of the character, he reduces the cost of powers by 1 Power Point (minimum of 1).

The effects of multiple fires do not stack. The character uses the largest damage rating. For instance, a character close to a 2d10 fire and a 3d10 fire subtracts 3 from the Power Point cost, not 5.

Telepathy

Arcane Skill: Psionics (Spirit)

Starting Power Points: 10

Starting Powers: 2

Spell List: *Beast friend, bolt, deflection, detect/conceal arcana, fear, puppet, speak language, and stun.*

Telepaths have access to only a few standard powers, but gain other benefits to balance this. First we need to look at their existing powers to see how they fit into the Arcane background.

Deflection functions as normal, but results from the character reading his foe's intentions just before they happen. As such, think of this as the telepath reacting to his foe's attack before it happens.

A telepath has the gift of telepathy—the power to read minds. A telepath learns to put up blocks to prevent him picking up every thought around him. Listening to the constant babble of multiple minds would quickly drive him insane. Telepaths have three specific abilities.

Mind Reading: If a telepath wants to read a specific mind, he drops his mental barrier for that mind only. This requires a Psionics roll and the target must be visible and within Spirit x 2 yards. With a success, the character can read projected surface thoughts as if they were spoken words. On a failure, the character has lowered the barrier too far and receives a sudden burst of multiple minds, which causes him to be Shaken. Using this ability costs no Power Points, but it is an action. Reactivating the block is, however, a free action.

Mind Probe: Telepaths can also conduct mind probes. These are deliberate attempts to poke around in someone's brain.

Probes have a range equal to character's Spirit, a Duration of Instant, and use 3 Power Points. Successful use requires an opposed Psionics roll against the target's Spirit. Unlike casual mind reading, probing can be detected by the victim.

With a success, the character can reveal deeper thoughts or common information not usually broadcast, such as the person's name (few people usually go around thinking about their name, so mind reading doesn't work here). Actively searching for a specific piece of information the target is trying to keep secret, such as the location of a secret base, requires a raise.

Telepathic Communication: Telepaths can also send messages to non-psionists. Doing so requires a Psionics roll, with a -1 penalty per 100 yards the target is from the psionist. You can extend this range if you wish—see the sidebar on page 55, using the extra cost as the penalty. Each success and raise allows up to 10 words to be broadcast.

New Edges

Not all Professional Edges need to cover mundane jobs—they can be used for psionists just as easily.

While tweaking the Arcane Background (Psionics) can be used to create variant psionic systems, using a Professional Edge adds flavor with less effort.

If you don't like the idea of changing the Arcane Background Edge, using Professional Edges gives you another avenue to explore.

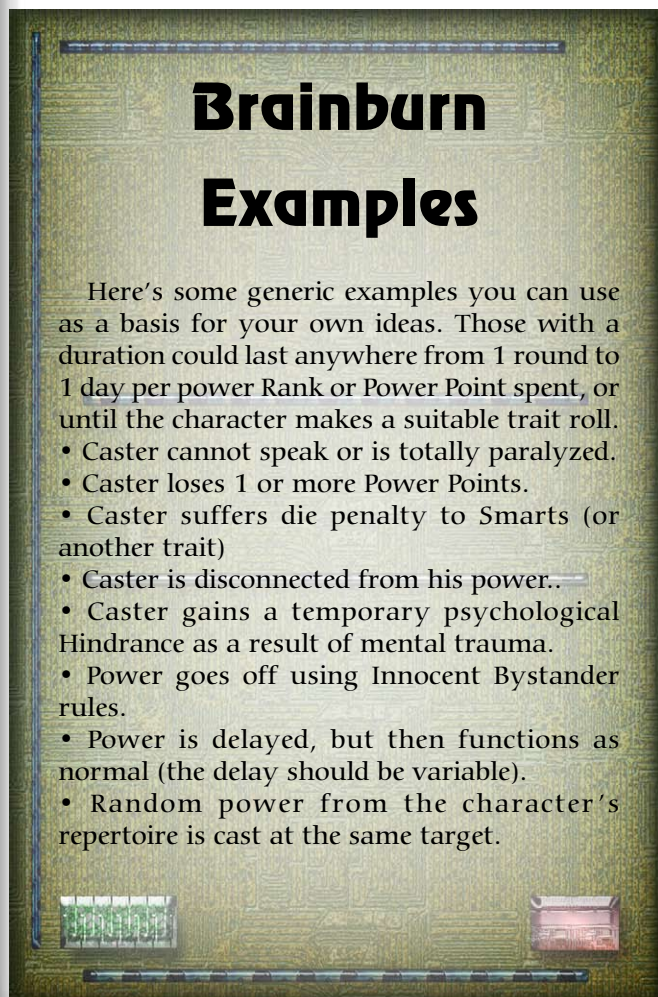
As with other Professional Edges, those designed for psionics should have requirements, one of which must be Arcane Background (Psionics). Each Edge should grant one or two bonuses with no drawbacks. Having limitations on its use is fine, so long as they do not render the Edge unusable.

Edge Examples

Close Contact Specialist

Requirements: Novice, Arcane Background (Psionics), Smarts d8+, Psionics d6+

The character can achieve greater results by direct contact with his target. The psionicist gains +2 to Psionics rolls when touching the intended target.



Brainburn Examples

Here's some generic examples you can use as a basis for your own ideas. Those with a duration could last anywhere from 1 round to 1 day per power Rank or Power Point spent, or until the character makes a suitable trait roll.

- Caster cannot speak or is totally paralyzed.
- Caster loses 1 or more Power Points.
- Caster suffers die penalty to Smarts (or another trait)
- Caster is disconnected from his power.
- Caster gains a temporary psychological Hindrance as a result of mental trauma.
- Power goes off using Innocent Bystander rules.
- Power is delayed, but then functions as normal (the delay should be variable).
- Random power from the character's repertoire is cast at the same target.

Electrokinesis

Requirements: Novice, Arcane Background (Psionics), Smarts d10+, Psionics d8+

Certain psionics have the ability to manipulate forms of matter or energy. Electrokinesis is the ability to manipulate and create electrical energy.

When adjacent to a sizeable source of electrical energy (GM's call), the psionicist can tap into it to produce the effect he desires. The Power Point cost of the power is reduced by one, to a minimum of zero, for each raise he scores on his Psionics roll. The character must have the full Power Points necessary to invoke the power before he rolls his arcane skill.

This Edge can also be used for cryokinesis (cold), pyrokinesis (heat/fire), and hydrokinesis (water).

Empath

Requirements: Novice, Arcane Background (Psionics), Smarts d8+, Spirit d6+

Empaths read surface emotions rather than engage in true telepathy. The character is an expert at reading emotional states and gains +2 Charisma when dealing with people face-to-face. This Edge confers no bonuses when talking to people over communications equipment.

Metaconcert

Requirements: Novice, Arcane Background (Psionics), Smarts d10+, Psionics d8+

By touching another psionicist, the character can work more powerful effects.

For each psionicist the character is touching when he activates a power, the Power Point cost is reduced by 1, to a minimum of 1.

Psychic Soldier

Requirements: Novice, Arcane Background (Psionics), Smarts d8+, Spirit d8+, Psionics d8+

The character is a combat psionicist, trained to use his mind even when wounded. He gains a +2 bonus to trait rolls when trying to resist disruption to maintained powers.

Ranged Contact Specialist

Requirements: Novice, Arcane Background (Psionics), Smarts d8+, Psionics d8+

The character can focus his mind to improve his chances of affecting his targets.

If the character does not move in a round, he may focus his mind, gaining a +2 bonus to Psionics rolls with any ranged power.

Brainburn

Altering the physical world, even one's own body, with one's mind is not a routine endeavor, even for the most powerful psionics. A lack of concentration, a stray thought, or factors beyond the psionics' control can cause mental feedback. Psionics call this effect brainburn.

The standard brainburn rules in *Savage Worlds* are perfectly suitable for any psionics. However, if you've gone to the trouble of tweaking the Edge thus far, you might want to finish the job.

If you wanted, each new variant of the Arcane Background (Psionics) Edge could have a custom brainburn result. The effects can be a flat penalty, such as being Shaken, or variable, such as the unfortunate caster rolling on a brainburn table. The latter is less Fast, Furious, and Fun, as it introduces an extra die roll, but variable effects help keep characters on their toes and not knowing what effect may manifest adds an extra dimension to using psionics unwisely.

Brainburn should be an inconvenience rather than deadly. Of course, being Shaken can prove deadly if a squad of star Marines decide to use you for target practise while you're dazed, but the effect itself is not. Unless the form of psionics is particularly powerful, never inflict wounds as a result of backlash.

Exactly what effect brainburn produces should also be based on how common psionics is. If it's a common phenomenon, psionics would likely have learned how to handle backlashes. In this case, simply being Shaken or losing a few Power Points is fine. In a setting where psionics is practised by only a few, the effects may be far greater. Brainburns are also negative effects—never give the character a useful bonus, even if designing a table.

Examples

Here's a few examples of brainburn effects you can use as they are or alter to suit your setting.

Biokinetics

Biokinetics have power over their own body. When a biokineticist roll a 1 on his arcane skill die (regardless of Wild Die), he must roll a d10 and consult the table below.

Roll	Effect
1-3	Spasm: The character's body is wracked by violent spasms. He is Shaken.
4-5	Short Circuit: A short circuit in the character's brain drains 1d6 Power Points (to a minimum of zero).

6-7 **Shakes:** The character suffers physical shakes. Agility, Strength, and linked skill rolls have a -2 penalty for 1d6 rounds.

8 **Mental Trauma:** The character suffers a painful headache for 1d6 rounds. During this time, all Smarts, Spirit and linked skill rolls suffer a -2 penalty.

9 **Fit:** The character lashes out with his hands and feet in an uncontrollable fit. He makes a Fighting roll against all adjacent targets. Damage is equal to his Str. The effect lasts 1 round.

10 **Internal Damage:** The character suffers 2d6 damage from internal bleeding. Armor give no protection.

Electrokinesis

Electrokinetics can manipulate existing electrical fields, and create them from within their own bodies. If an electrokinetic rolls a 1 on his Psionics die (regardless of Wild Die), he suffers 1d6 damage from a power surge. Regardless of how he is using his power, the surge is generated within his own body, and Armor provides no protection (though Arcane Resistance does). Pyro-, cryo-, and hydrokinetics suffer similar effects, though these are caused by heat, cold, and water.

Telepathy

A telepath who rolls a 1 on their arcane skill die (regardless of Wild Die) is overwhelmed by mental images and voices. They are Shaken. As an alternative, you might wish to have the character bleed from his eyes or ears.



Psionic Powers

The standard powers in the *Savage Worlds* rules cover most of the basic powers required in a sci-fi game, but maybe you want more. *Puppet* might let you take control of another person's mind, but it doesn't allow telepathy between allies or even the ability to suck secrets from their mind. Sure, you could ask them to talk, but what if they consciously don't know the answer you seek? This chapter takes a look at creating new powers.

Tinkering

One way to introduce new powers is simply to allow existing ones to be used differently, or seen in a new light. Few psionics are likely to have the ability to open a door with a casual wave of the hand, but they could use *boost trait* to gain a bonus to Lockpicking, or use *telekinesis* to batter it down. There's no need to create a new power just for this purpose.

Puppet can be used on beasts as well as plants with absolutely no changes. It can even be turned into mind reading with only a slight tinkering. The power works the same, but has a Duration of Instant. Rather than controlling the victim's mind, the psionist reads the target's surface thoughts on a success and deeper thoughts or hidden information on a raise.

Creating New Powers

If you can't find a way to quickly convert a power from another setting or you want to expand the power list, you'll need to get your thinking hat on.

The first step when creating a new power is to think about the effect. Until you've done this, you can't

assign it Power Points, Range, or Duration. Remember though, if you're creating a new combat spell the basic powers and a new trapping will cover most bases.

Effects can be whatever you want. Really. However, the more powerful the effect, the higher the Rank of the caster, and possibly the Power Points. If you're going to allow "instant death" powers, they should be Legendary and maybe cost as much as 20, even 30 points, to cast.

Most standard powers have a duration of 3 (1/round). This should suffice for most new powers, though it depends on the effect.

Non-offensive powers that work at distance should be based on the Smarts of the caster. At most, a spell should have a range of Smarts x 2, and usually only when it has a Burst Template effect. Offensive spells, especially those which inflict damage, should use the standard 12/24/48 brackets.

No amount of tables can help you balance a power. You can use the existing powers as guidelines, but you can also apply some forethought. Think about the cost of the spell and the effect in relation to how many Power Points characters can have at each rank. Work out how many times it can be cast before the characters runs out of Power Points.

At the end of the day, common sense should prevail. If you allow arcane psionics to have an Instant Death spell at Novice with a cost of just 2 Power Points, don't be surprised when your lovingly crafted villains drop dead like flies.

Introducing New Powers

If you're already running a game and use this section to add some new powers, think about how you're going to introduce them.

If you just turn round and say, "Here's a load of new powers you can take," your players might be a little upset. After all, their characters might have taken different powers from day one.

A better way is to introduce them slowly. One option is to have the characters find a rogue psionist who has been experimented on by an alien race or by a secret cabal trying to develop more potent psionists. In return for helping him avoid recapture, he agrees to teach a psionist character his powers.

Trappings

Psionics may, at first glance, not require physical trappings. After all, the effects are only mental, right? Well, not always. A pyrokinetic might launch fireballs rather than give foes a mental blow. Likewise an electrokinetic uses a field of crackling energy for *deflection*, and perhaps even uses it to *fly*.

If you want a pyrokinetic to be covered in fiery *armor*, just add fire as a trapping. It doesn't change the rules one bit, but it makes the power more flavorful.

Ideally, each character should give his standard powers a suitable name, based on his style of psionics and the trappings. For instance, unless the character throws physical *bolts*, he could change the name to *mind bolt*, *scramble*, or *mind shock*. Nothing changes but the name, but again it adds flavor.

Although physical trappings are likely to be less common in a sci-fi game, they can also be used to add additional game effects. A fire trapping, for example, may set fire to the target, but what about an ice trapping for a cryokinetic or a regular psychic trapping? Shouldn't these have additional effects as well? They should if that's what you want. Remember, the basic *Savage Worlds* rules are templates for you to play with.

Let's take a look at some possible alternate trappings and their game mechanics. Most are best suited to offensive spells, but some can be used defensively as well.

One important thing to remember is that trappings with special effects should be balanced. If you create a version of *bolt* that inflicts more damage, everyone will want it. A weak trapping, even one with a game mechanic attached, will look less attractive.

Cryokinesis

Cold is different to ice in that it isn't a solid substance. A cold trapping attached to a physically-damaging spell more likely freezes flesh and bone, inflicting frostbite, rather than causing cuts and bruises.

One obvious thing about ice is that it is slippery. You might decide that a *blast* or *bolt* also makes the affected area slippery. Each *bolt* would affect a 1" square, whereas *blast* affects the area under the Template.

Anything moving through the affected area would count it as Difficult Terrain. If they run, they must make an Agility roll or slip and fall prone, becoming Shaken if they roll a 1 (regardless of Wild Die).

In a hot environment, the ice remains for just 1 round. Under temperate conditions it lasts for 3 rounds, and in cold environments it lasts for 10 rounds. If the temperature is actually below freezing, the ice remains under the temperature changes enough to melt it.

A second option is to have the power inflict Fatigue rather than wounds. The damage mechanics remain unaltered, but damage causes no lasting injuries.

A third option is to have the trapping numb the target's reactions through intense cold. In addition to damage, the target must make a Vigor roll or suffer the chills. He has to redraw action cards over 10, not including Jokers. Each round he makes another Vigor. On a success, he throws off the effect.

Metal objects may also become icy-cold, causing the user frost damage if they are touching his skin. This might be fixed damage, such as 1d6 per success and raise, or it might require a Vigor roll to let go of the object.

This may not sound too bad, but it's a bind if the victim is holding a now empty potion bottle he can't dispose of or was planning on throwing a dagger (or worse still, a grenade!). The effect lasts until the caster's next action card.

Electrokinesis

Electrokinesis is the harnessing of electrical energy. One possible trapping is to allow the damage to arc across adjacent targets. For *bolt*, the actual target would take the full damage of the spell. Each adjacent target takes one less die of damage. If you wanted, you could have the effect continue, with targets adjacent to the secondary victims (moving away only—each victim only ever takes one lot of damage) taking another die less.

You could do the same for *blast*. The easiest way to handle this is to have all characters in the Template take damage with adjacent figures outside the template taking one die less damage.

Alternately, you may rule that foes wearing metal armor against skin or holding a metal object in an ungloved hand take an extra d6 damage. Victims standing in water might be similarly affected.

Electrical *armor* may cause attackers using metal melee weapons to make a Vigor roll or be knocked

back 1d4" and sent prone by the discharge. The same could easily apply to *barrier*.

Mental

Since psionics is the power of the mind, it is only logical that characters might want to launch psychic *bolts* with no physical trapping. If you intend to allow this, there's a minor rule change you might consider introducing. Since mental *bolts*, *blasts*, and *bursts* are psychic emissions rather than mental ones, physical armor and Vigor have little impact. Instead, introduce Mental Toughness. This works like regular Toughness, but is based on Spirit rather than Vigor. Arcane Resistance applies as normal.

Of course, since it will be known (generally) that psionics can use this trapping, a range of anti-psionic headgear if likely to exist as well. These items provide +1 to +3 Armor against mental trappings, but have no effect against physical attacks.

Pyrokinesis

Pyrokinetic effects produce fire. As such, targets hit by an offensive spell or use melee weapons against a defensive spell have a chance of catching fire, as per the *Savage Worlds* rules.

An alternate form of pyrokinetics uses heat. Such a trapping may inflict Fatigue damage as with cold, or heat metal objects. Dehydration may cause a similar loss of reflexes. Unlike fire, however, the target has no chance of catching fire. A fire trapping is already powerful, so don't add these two together.

Used with *deflection*, a heat trapping would be a veil of heat haze, making the caster harder to see, and therefore hit.

Sample Powers

Some GMs and players like long power lists—it gives characters more choice and allows more variation in powers. We've come up with a batch of new psionic powers for you to use, ignore, or alter as you see fit.

If you don't like a power, don't allow it in your game. If you want to increase or decrease the cost, range, or effect, you can do so without worrying about keeping things canon.

Anger/Peace

Rank: Seasoned
Power Points: 2
Range: Smarts x 2
Duration: 3 (1/round)

Trappings: Gestures, whispered words, empathy.

Anger creates feelings of open hostility in the recipients. The target must make a Spirit roll opposed by the caster's arcane skill roll. If he fails, he immediately starts fighting the nearest person. Victims target known enemies first, but turn on friends if none are present.

Peace removes feelings of hostility, but does not make the target friendly. The target must make a Spirit roll opposed by the caster's arcane skill roll.

Those who fail immediately cease all hostile actions for the duration. If attacked, they defend themselves and are allowed another Spirit roll to free themselves of the power's effect. Likewise, if the caster or his allies perform an action the target finds reprehensible, such as attacking his allies, he is entitled to make another roll to break free.

If you're using the Range Increase guidelines on p.55, this power can have a greater range.

Block

Rank: Novice
Power Points: 1
Range: Self
Duration: 3 (1/round)
Trappings: Concentration

Some people, not always psionics, are born able to block others from their mind. Others, including psionics, have to be taught how to prevent unwanted intrusion.

With a success, the character adds +2 to his trait rolls to resist opposed powers, and acts as if he had 2 points of Armor when hit by psionic attacks. This does not stack with the Arcane Resistance Edge. On a raise, the bonuses increase to +4.

Confuse the Mind

Rank: Novice
Power Points: 2
Range: Smarts x 2
Duration: 3 (1/round)
Trappings: Dazed look, loss of coordination

Those of weak mind are playthings for powerful psionics. Whereas *puppet* allows a psionics to control a victim's mind, this power simply overloads it.

The caster must pick a single target within range and make an arcane skill roll opposed by the victim's Smarts. If successful, the psionics causes the victim to lose concentration and coordination. All the victim's trait rolls are made at -2 for the duration, -4 on a raise.

If you're using the Range Increase guidelines on p.55, this power can have a greater range.

Darksight

Rank: Novice

Power Points: 1

Range: Self

Duration: 10 minutes (1/minute)

Trappings: Glowing eyes, mind over matter

Whereas *light* creates a source of illumination usable by others, *darksight* affects only a single person. The advantage is the target can see but does not radiate light.

This power allows the psionicist to alter his vision to see without any source of light, negating all penalties for bad lighting, even conditions of darkness created by magic. The psionicist must be capable of sight in order for the power to function—it does not allow the blind to see.

Decipher

Rank: Seasoned

Power Points: 1

Range: Touch

Duration: Instant

Trappings: Waving hands over text, trance, whispered words, mental images.

Whether exploring the ancient texts of a long-dead civilization or stealing coded papers from enemy spies, the ability to understand texts in a foreign language can reveal valuable information.

The psionicist gains an immediate basic understanding of the contents, though he does not know specifics. For instance, a psionicist might learn that the text is a coded message regarding a secret space station, but he does not glean its location, function, size, or whatever—just that it exists.

Empathy

Rank: Novice

Power Points: 2

Range: Smarts

Duration: 3 (1/round)

Trappings: Concentration, body reading, change in own body language to match target's responses

Empathy is the ability to read surface emotions. With a successful arcane skill roll, the character learns the emotional state of one target within range. So long as the power is on, the psionicist gains +2 Charisma when dealing with that person as he understands his current state of mind. He does not learn the reasons why the target is feeling that way, however.

If you're using the Range Increase guidelines on p.55, this power can have a greater range.

Although Charisma is not a trait, you may wish to allow *boost/lower trait* to include this option, rather

Range Increases

Having a high Smarts can help with certain powers, but using clairvoyance or telepathy over a few yards isn't exactly spectacular. This sidebar looks at an optional method of increasing the range of psionic powers. Which powers it can be used with is, at the end of the day, your choice, but we recommend it be limited to the following: *beast friend*, *detect/conceal arcana*, *fear*, *puppet*, *speak language*, and *teleport*.

How does it work? First, the psionicist has to know the name of the person he is using the power against and have a general idea of where they are.

Second, he pays an increased cost based on the range. Because sci-fi can vary in scope from a single planet to an entire galaxy, here's two example Range Tables. If you need a different table, these serve as a good baseline for your own creation.

Single Solar System

Cost	Maximum Range
1	10 miles
2	100 miles
3	1000 miles
4	10,000 miles
5	100,000 miles
6	1 million miles
7	10 million miles
8	100 million miles
9	1 billion miles
10	Anywhere in solar system

Galaxy

Cost	Maximum Range
1	100 miles
2	1000 miles
3	10,000 miles
4	Anywhere on a single planet
5	Anywhere in one solar system
6	10 lightyears
7	100 lightyears
8	1000 lightyears
9	10,000 lightyears
10	Anywhere in the galaxy

Changing Trappings

Should a psionician be allowed to change his trappings to take advantage of a situation? For example, can he use a pyrokinetic *blast* against a combustible target and then use the same power with a cryogenic trapping? That's up to you.

The argument against is that each trapping represents a unique ability. Characters should pick a trapping when they select a power and that becomes immutable.

For instance, if you have a pyrokinetic *blast* then it will always have a fire trapping. If the psionician wants to do an electrokinetic *blast*, he'll need to learn a new power.

The argument for is that the psionician has a basic understanding of the power, and can add trappings simply by altering the way his mind invokes the power. With this method, the character knows one *blast* power but can produce a multitude of special effects.

Which version you prefer is personal choice, but it should be defined before play begins and then remain a constant.

than introduce a completely new power to fulfil essentially the same function for a derived stat. Where possible you should always try to press an existing rule or Edge into service before creating something entirely new.

Forget

Rank: Novice

Power Points: 2+

Range: Smarts x 2

Duration: Instant

Trappings: Gestures, speaking a stream of gibberish, hard stare.

With this simple power, the psionician can make his victim *forget* everything that has occurred in the last 10 minutes, plus an additional 10 minutes per Power Point invested when the power is activated. This requires an opposed Psionics roll versus the target's Spirit. Each success and raise erases the last 5 minutes from the victim's mind.

If you're using the Range Increase guidelines on p.55, this power can have a greater range.

Ignite

Rank: Novice

Power Points: 2

Range: Smarts x 2

Duration: Instant

Trappings: Clicking fingers, blowing, hard stare.

This simple power is favored by pyrokinetics. Rather than slowly heating an object to its combustion point, it does so instantly. Combustible targets automatically catch fire and suffer 1d10 fire damage on the round the spell is cast. Each round thereafter check to see if the fire spreads as normal.

If you're using the Range Increase guidelines on p.55, this power can have a greater range.

Leaping

Rank: Novice

Power Points: 2

Range: Self

Duration: 3 (1/round)

Trappings: Mind over matter, changes density

The psionician can jump greater distances than normal. Each success and raise adds 1" to jumping distances.

Mind Rape

Rank: Heroic

Power Points: 15

Range: Smarts

Duration: Instant

Trappings: Concentration, trance

Despite its name, *mind rape* is not an attempt to glean information from a victim's mind. Instead, it is a violent mental assault designed to inflict permanent psychological damage. It is often used as torture.

It requires an opposed Psionics roll against the victim's Spirit. On a success, the victim suffers a permanent -2 penalty to all Smarts, Spirit, and linked skill rolls. A raise increases this to -4.

At your discretion, the *greater healing* power may be used to repair this damage. Repairing a successful attack costs 10 Power Points, while a raise uses 20 points.

If you're using the Range Increase guidelines on p.55, this power can have a greater range.

Mind Reading

Rank: Novice

Power Points: 1

Range: Smarts

Duration: Instant

Trappings: Concentration

Mind reading allows a psionist to read the minds of others. With a successful Psionics roll, the psionist reads the target's current surface thoughts. Such an intrusion goes unnoticed as the psionist is only receiving broadcast signals.

If you're using the Range Increase guidelines on p.55, this power can have a greater range.

Mind Riding

Rank: Veteran

Power Points: 2

Range: Smarts

Duration: 3 (1/round)

Trappings: Concentration, trance

Mind riding is the ability to place your mind inside someone's else body. If the victim is an unwilling subject (which includes anyone whose permission has not been gained), this requires an opposed roll of the character's Psionics against the victim's Spirit.

A mind rider gains no control over his victim, but he has access to his victim's senses and can see, hear, smell, taste, and feel everything his victim does. Although very handy for spying, it has a drawback.

If the victim is injured in any way, including being Shaken by physical injury, the psionist must make a Spirit roll or be Shaken and contact immediately severed. A penalty of -1 applies for each wound the victim suffers. If the victim dies, the psionist is automatically Shaken (and contact is broken) and cannot attempt to recover for 1d6 rounds.

If you're using the Range Increase guidelines on p.55, this power can have a greater range.

Mind Swap

Rank: Legendary

Power Points: 20

Range: Touch

Duration: Permanent

Trappings: Force of will, concentration

Legends tell of psionists able to achieve immortality by transferring their minds to other bodies.

Use of this power requires the character to make an opposed roll of his arcane skill at -4 against the victim's Spirit. On a success, the psionist successfully transplants his mind into his victim's body, but has only suppressed the original mind. On a raise, the character destroys the original mind completely (the victim is essentially dead). Either way, the psionist has no power to access the mind of his victim, the power is intended only to find a new host for the psionist's mind.

The psionist retains his Smarts and Spirit, as well as all his skills, and Edges except those specifically related to the physical body (such as Attractive or Fleet

Footed), and all mental Hindrances (such as Arrogant, Delusional, or Phobia). He gains his new body's Agility, Strength, Vigor, and any physical Hindrances (such as Lame, Young) and Edges (Attractive, Quick, and so on). The GM has the final say on what Edges and Hindrances are kept or gained.

The Wanted Hindrance is a physical Hindrance for this purpose, as it is usually based on the victim's appearance, not his mind. The GM may also rule that the psionist loses any Connections he had. He may retain his knowledge of his Connections, but he no longer looks the same and could be an impersonator or an enemy agent.

If the original mind is only suppressed, it can regain control of its body, if only for a short while. If the psionist ever rolls a 1 (regardless of Wild Die) on a Spirit or Spirit-linked skill roll, the original personality regains control. The psionist is trapped in the body and has no direct control over any part.

To re-suppress the personality, the psionist must make an opposed Spirit roll against that of his victim. This may be attempted only once per hour. A psionist struggling for control of his body in this way should start looking for a new target as soon as possible!

Object Reading

Rank: Seasoned

Power Points: 2

Range: Touch

Duration: Instant

Trappings: Concentration, trance

Object reading is the ability to see the past of a specific, inanimate object, discovering who held it, where it has been, and such like. Each success and raise allows the character to see previous owners of the object, starting with the most recent and working backward. The character sees an image, but does not know the person's name or current whereabouts.

Postcognition

Rank: Veteran

Power Points: 1+

Range: Self

Duration: 3 (1/round)

Trappings: Trance, concentration

Whereas *precognition* allows a character to see a glimpse of the future, *postcognition* lets him see the past, albeit with restrictions.

Each Power Point invested allows the character to view his current surroundings as they were one hour ago, with no maximum. For all intents and purposes, the character views the scene as if he were actually there in the past. So, if the character turns, he sees the scene from a different angle.

Precognition

Rank: Veteran

Power Points: 3

Range: Special

Duration: 3 (1/round)

Trappings: Trance, intuition

The character has a limited ability to glance into the future. If the casting is successful, the caster may rearrange any two Action Cards (four with a raise) for any combination of allies or foes (including himself) as he sees fit each round for the duration of the spell starting the round *after* the spell is cast. Cards must be moved before anyone acts in each round. Edges (such as Quick) take effect after the cards are moved.

Probe

Rank: Seasoned

Power Points: 3

Range: Special

Duration: Instant

Trappings: Concentration

Mind reading allows for the scanning of surface thoughts, but to reach deeper into a victim's mind the psionics must use a *probe*.

The psionics must make a Psionics roll opposed by his victim's Spirit. The character must beat his victim's roll and score a success. The target knows he has been probed, but not necessarily by whom.

If you're using the Range Increase guidelines on p.55, this power can have a greater range.

Remote Viewing

Rank: Novice

Power Points: 5

Range: Variable

Duration: 3 (1/round)

Trappings: Closing of eyes and concentration

Remote viewing is the ability to acquire detailed knowledge of present events and locations across vast distances by projecting the psychic's own inner eye away from himself to another location. By using *remote viewing* the psychic can see a location as if he were standing there. The vision is always very clear, but he only has visual knowledge of the environment and no other senses.

To use this power, the caster must make a successful arcane skill roll and close his eyes for the duration of its use, otherwise he must activate the power again. The difficulty of the viewing depends on the distance to the target. The penalty to the arcane skill roll is -1 for every 100 miles to the viewing location. The psychic need not have a line of sight to, or have ever been to, the location for this power to work.

Telepathy

Rank: Novice

Power Points: 1

Range: Smarts x 2

Duration: 3 (1/round)

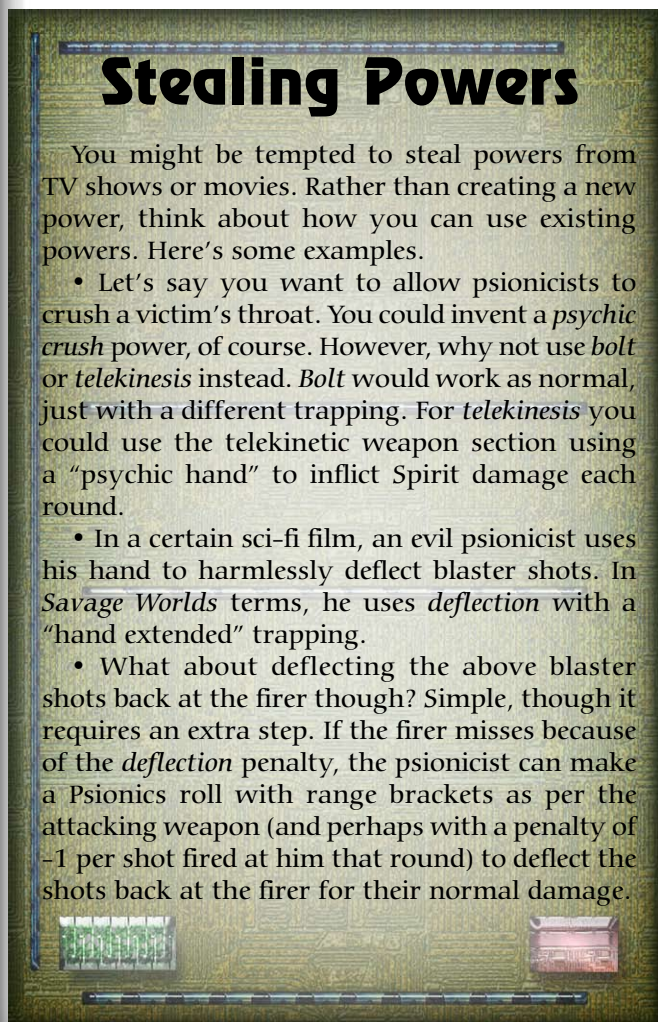
Trappings: Trance, concentration, mental image

Telepathy is the ability to communicate over distances. Usually it allows only thoughts to be transmitted, in the form of words, but there's no reason it can't send images as well.

Depending on your setting, it might be restricted in its use. For instance, maybe just the telepath can broadcast his thoughts, requiring him to use the *mind reading* power at the same time to receive thoughts back. For convenience, you may decide it's easier to allow both parties to communicate in both directions once contact is established.

For as long as the power lasts, communication occurs as if the characters were talking face-to-face.

If you're using the Range Increase guidelines on p.55, this power can have a greater range.



Time Travel

Time travel is a subject few sci-fi games dwell on. Either the technology doesn't exist, the laws of time have prevented travel, or the game mechanics are simply too unwieldy to be of much use.

In this chapter, we're going to look at time travel and its possible drawbacks and game effects.

Why Travel In Time?

Before you begin to think about how time travel works, you need to consider why it's available. Even if there is only a single time travel device in the universe, you'll need to consider the option that the characters will one day get hold of it and use. If not, why bother having it there in the first place?

If you plan on using time travel regularly, it may be a wise idea to base your entire setting around the principal. Maybe the characters are time cops or temporal troubleshooters clearing up other people's meddling, historians getting an accurate glimpse at history, or inadvertent victims in a time travel experiment who can't control their journey through time.

Paradoxes

Time travel allows the characters to visit different points in time, and possibly space as well. You might allow them only to jump centuries forward in time, into one of many *possible* futures, or backward, into the definite past.

The latter allows for the possibility of time paradoxes—changes to Earth's history which result in events that never happened the first time round. An obvious example is going back to 1923 and killing Hitler in the Munich Putsch. With Hitler dead, the

Nazi's never come to power, World War II is averted, and tens of millions of people don't die. A noble gesture perhaps, but Hitler *did* come to power, and events unfolded as we know them.

Killing Hitler creates a paradox, and a pretty big one at that. So how do you stop the characters altering history and quite possibly their own future?

Well, one way is to have the timestream defend itself. Maybe they get close to Hitler and shoot him, but despite a mortal wound, he survives. Alternately, maybe history develops a very minor kink to avoid the chance of Hitler dying.

For instance, assume the group know Hitler will be at a certain place, on a certain date, and at a certain time. They set up an ambush, but Hitler fails to arrive. Unknown to them, he suddenly changed his plans. Sure, actual history has been altered, but not by enough to cause any permanent affect.

But what happens if they succeed and paradox goes ahead? The timestream splits into a history which remains as ours did, and one in which Hitler died.

Unfortunately, the characters are in the alternate history, and there is no way of getting back to the timeline they were born in. History up until the split is exactly the same, but anything after that event, for the characters at least, is part of a new history.

What happens during the new history is left to you to decide. Without World War II, America may never have become a military superpower, the British Empire may have lingered for decades longer or still be in existence, or faced with no major power to his west, Stalin may have decided to invade Europe and bring about an altered World War II. Kill Stalin (this is still the past, remember), and the timeline splits again, creating yet another alternate history, and who knows what other mayhem ensues!

GM Created Paradoxes

Imagine the heroes are involved in a plot to alter the timeline back in 55BC by saving Julius Caesar's life. During the adventure, the time-traveling villain dumps the dead body of a character he killed in the near-future back in the near past for them to find.

Other than shocking the group, especially the victim, you've created a possible paradox with only one solution. Because you're decided the character dies at the hands of the villain, this has to occur. By dropping the body back in time, you've made it part of history. Unless the character dies at approximately the right point in time and is taken back in time, two histories now exist—one in which the character died (the true history) and one in which he survived (a broken history).

The easiest way to avoid this problem is simply not to try and be clever.

Time Travel Is Money

If time travel were possible, it would be very easy to get rich quick. Hop back a few centuries and collect a few Ming vases or deposit some hard cash into a bank or invest in a startup company like Coca-Cola, and you're guaranteed a tidy sum back in the present.

Technically this creates a minor paradox, but unless the now rich character does something stupid, like buys an atomic bomb and sets it off in a major city, thus triggering World War III, it isn't going to cause much disruption to the past.

Can you avoid this in your game? Probably not. Even if the characters work for a moral organization dedicated to not altering time, the characters are only human.

Time Travel Rules

If you're planning on using time travel in your game, you need to have some sort of time machine.

You don't need to worry about the actual dynamics of time travel. Heck, if it were that easy to understand we'd have mastered it by now. Whether the device is a starship, swirling ball of energy, or a blue police box doesn't affect it's purpose.

Long Duration Travel

When traveling in time outside an adventure, such as moving onto the next scenario, you don't really need to worry about game mechanics.

In most cases, all the characters need to do is program coordinates in the three physical dimensions and the fourth dimension, that being time. Unless

the time machine is faulty or the characters have no way of operating it (thus being at your mercy as to where and when they go), it's easiest to assume the procedure has no special rules. Treat it as you would FTL travel—just another means of getting from A to B.

Should you wish for there to be a possibility of a mishap, such as being thrown off-course by a temporal storm, have the pilot make a Smarts or Knowledge (Temporal Mechanics) roll to avoid a mishap.

Short Duration Travel

Time travel within the confines of a scenario, in particular within a single encounter, can cause a world of headaches for you as GM.

What happens if a character nips forward in time to see how the battle ends? Goes back in time a few rounds to alter the outcome of the present combat round? Or worse, goes off somewhere in time during a combat round, spends a few months learning new Edges, then comes back and rejoins the fight a micro second after he left but with new abilities?

The easiest way to avoid this is to have time travel only available through a large machine. By the time the character reaches the machine and gets it started, the battle is likely to be over and the whole point is moot. However, it may be that in your setting characters have portable time travel devices. (This works best if the game is set on a single world, such as Earth.)

Let's start at the back first.

Advancing During A Fight

There is nothing wrong inherently wrong in letting the characters "power up" during a fight, so long as you're prepared to keep an accurate diary of each fight, listing wound status, Power Points remaining, position, and so on, for every combatant in every fight a character leaves.

If handled well, this adds a very cool element to your setting, but there are some major drawbacks which can cause potential paradoxes, not to mention GM nightmares.

First, a single character bugging out of a fight to learn new stuff, which probably requires him to gain some experience points elsewhere, means the entire battle gets put on hold. You could ask the character what he's using his next advancement for and carry on as if he had the advancement, but at some point you still need to run an adventure for the character so he can earn the experience.

Of course, if all the characters decide to do this (or they're all linked to the same time travel device, so if one goes they all go), it's not a problem. Simply record

the fight, then start the next adventure. When they're ready, they can return as a group.

What happens if a character dies in the "in-between" adventure though? If you've stopped the game, you can simply pick it up where you left off. As far as everyone in the fight is concerned, the character simply vanished and never returned. This might cause anyone seeing this to be Shaken, especially if the character was back in time fighting in the War of Independence at the time.

Second, if the character goes back in time to gain some experience points and dies, you have to decide whether the timeline treats him as being dead at that moment in time, in which case he couldn't possibly have been alive to start the future battle without causing a paradox. (Now you know why few games bother with time travel.)

Summary: This principal can work fine if you're prepared to put in a great deal of effort. As for characters dying after bugging out, just have them vanish during the fight they left and think no more about it.

Combat Revisited

Allowing a character to return to a point previously in the fight creates a great deal of problems. Avoiding this situation is easy—simply rule that the time travel device prohibits a character from traveling to a time and place in which he already exists. Another way is to have the entire timestream jump back, rather than just individual characters.

The result is that you rewind time the required number of rounds and restart the fight from there. Wounds taken in the interim period vanish, Power Points are restored, and characters move back to approximately their previous positions. (Getting exact locations is likely to be tricky, especially if the character leap back several rounds.)

If, however, you rule that a single character can travel back in time, you've opened a can of worms. For a start, you'll have two versions of the character in the fight at the same time. The future version keeps all his current wounds, Power Points, and so on, but everyone else has to be "reset" as above.

The fight continues with two versions of the character up until the round in which he jumped back in time. Here you have two solutions available.

First, the character has created a time loop from which he can never escape. When he reaches that point, the future self vanishes as it becomes the present self, and the present self repeats the action of going back in time. The character is now out of the game. Permanently.

Second, the future self version simply vanishes as he goes back in time in a permanent time loop, while

Paradox Loops

Time loops are created when a certain event takes place which causes history to repeat itself, to ensure the event happened.

Two notable examples are from a sci-fi movie in which a certain robot goes back in time to ensure a particular human is never born.

Paradox Loop 1

At the end of the film, a piece of the robot is left intact, which scientists then use to build the computer which eventually turns on humanity. In a bid to stop his human enemy leading the remnants of humanity to war, the computer sends a robot back in time to assassinate him before he is born. Of course, if the robot hadn't gone back in time, the future he came from wouldn't exist. This by itself is a paradox.

What if the robot is completely vaporized in the past and no remnants are left? Well, that can't happen without causing a split in the timeline. By appearing in the past, the robot must have existed at some point in the future, and since he did appear in the past, his future is unalterable without repercussions.

Paradox Loop 2

The second paradox loop concerns the birth of the computer's main enemy. In a bid to protect his present self (in our future), he sends a human commando back to safeguard his mother from the robot. In doing so, the person he sends back in time becomes his father.

So how does this loop begin? It can't, and yet it exists because it affects the past (our present). The man must be born in order to send his father back in time, but until the man is born, he can't become his future self and send his dad back.

This paradox loop creates some interesting points of discussion, but try to avoid such things in your game unless you really want to dabble in philosophy and metaphysics.



the past version, which is now the present version, carries on as normal.

Of course, during the time when both characters exist one of them may get killed, and here you get a paradox. If the future self died in his past, he can't have ever been in the future to come back, so his appearance never happened and you need to rewind the entire fight again. And if the past self died before the point his future self went back in time, there was no future self to go back. Alternately, just rule the character died and ignore the paradox.

Summary: Unless you're prepared to devise some complex mechanics, simply avoid this situation before it ever occurs.

The End First

This is actually the easiest situation to handle. If the character simply goes forward in time to browse, describe the outcome anyway you want. The future hasn't happened until it becomes the consensual present, and can vary with actions taken in the past. All the character sees is a *possible* future. Keep your descriptions vague, and the players will likely let the minor differences fly.

If a character decides to nip forward in time to the end of the fight and then join in, have him decide how far ahead he wants to travel (in combat rounds) and where he wants to appear on the map.

Next, simply have him disappear from the timeline of the main body of characters and run the fight as normal. At the appointed time, and place, the time-traveler reappears to join in the fray.

What if all the characters go forward in time to the end of the battle? Simple. During the time between their leaving and returning, time runs as normal. If the opponents are sentient, they're likely to run away or set up an ambush. When the characters reappear, they find the battlefield deserted or get caught in a deadly crossfire.

All you need to remember is that the villains have no idea when and where the characters will appear. That remains GM knowledge only.

Summary: Characters going forward in time simply leave the battle. The players get to watch the fight for a few minutes before his character reenters. In the interim, the group has one less character in the fight.

Final Summary

Used carefully, and with strict guidelines on what can and can't be achieved, time travel can add greatly to a setting. A game where characters hop about through time, and maybe space, allows you to run games set in any historical period, then move onto another period of history.



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