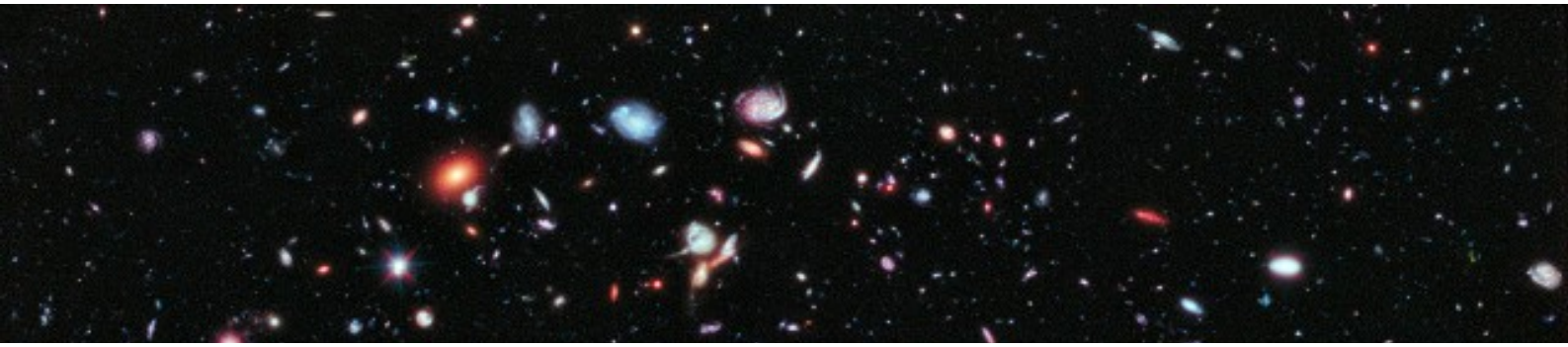
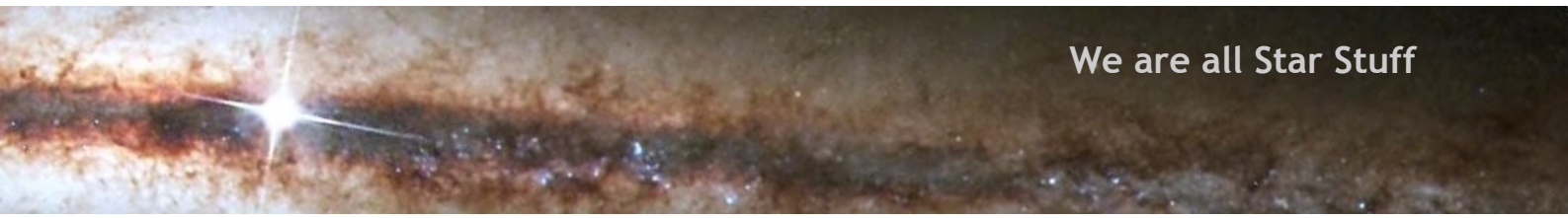
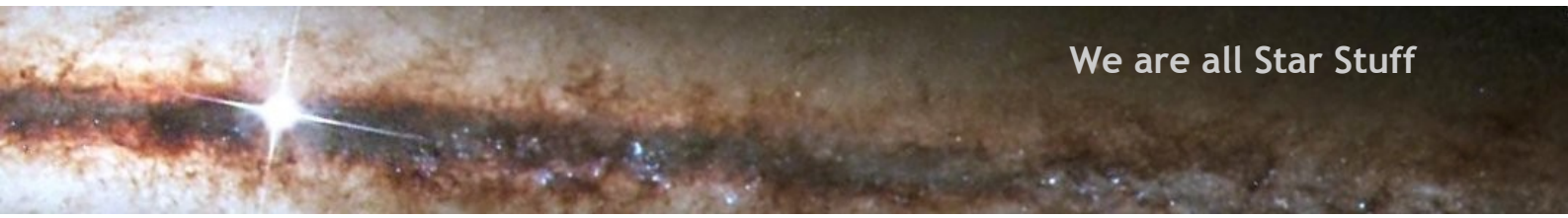


We are all Star Stuff

(... Literally)


We are all Star Stuff



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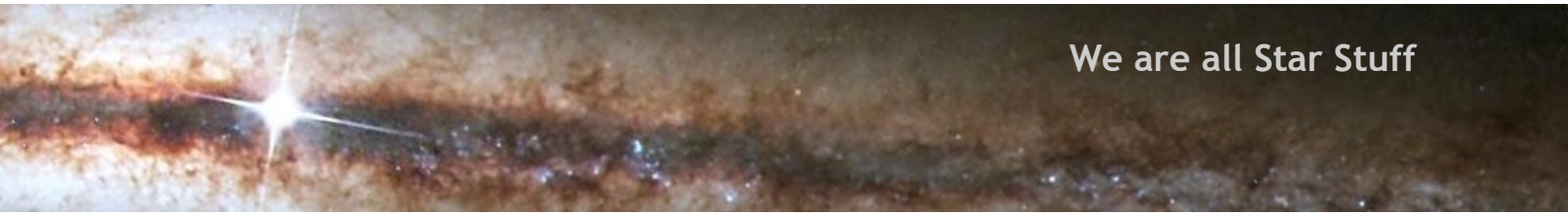
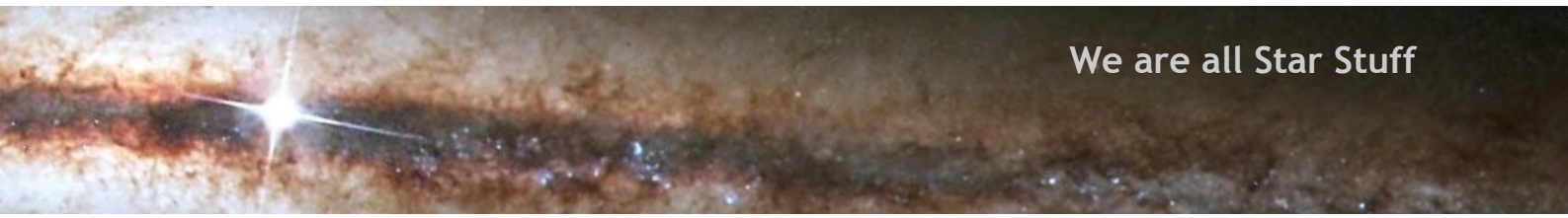


Introduction

In the immortal words of Carl Sagan, we are all star stuff. In this roleplaying game, the players take on the role of a star. You are not playing a rock star, not a movie star, nor a reality tv star. You are playing a ball of burning gas, roaming the skies in search of adventure and perhaps some cosmic hijinks.

In the beginning, there was a flash. Someone might or might not have said something about light along the way. Clouds of swirling gases fell upon themselves in the universal crèche, igniting the hellfire engine to millions of protostar hearts, pumping Hydrogen and Helium, Carbon, Nitrogen, and Oxygen. Small brigands of young stars fell in and out of love in the early open clusters. As the stars matured, they founded settlements and globular clusters began to form throughout the universe. The settlements grew into the galaxies that shine through the bleak background of space, calling out to lonely stars everywhere to join in on the revelry. Tales of yesterday and prophecies of tomorrow are spun around the nebulae, gathering place for a quick bit of rest, relaxation, and gaseous pick-me-up to for that burning fusion engine in the pit of every star's stomach.



Your Fate is in the Stars

Whom do the stars turn to when Fate is calling? The oldest and most bombastic of the stars revealed a cache of metals like nickel and iron. To respect the remains of the elders, who will reveal the fates of stars yet to come, the players will use metallic coins. Grab that bucket, bag, bottle, or jar of coins that has been gathering dust, because it is going to come in handy.

In United States currency, the penny is the smallest denomination. It is worth 1 unit of currency, so it shall be worth 1 unit of heat (Kelvin) in the game. Heads on any coin is worth the value of the coin: a penny showing heads is worth 1, a nickel showing heads is worth 5, and so on. Tails on any coin is worth two times the value of the coin: a penny showing tails is worth 2, a nickel showing tails is worth 10, and so on.

! Mnemonic:
Face is on the head: face value. Twice the tails!

If a player spends 10 Kelvin (why a player would do such a thing will be explained later), the player may flip a single dime, or two nickels, or ten pennies. If all the coins come up tails, the toss is worth 20 Kelvin even though only 10 Kelvin were spent! Quantum uncertainty at its best!

! If the smallest denomination available isn't 1, multiply all Kelvin values printed in this book by that smallest denomination.

Stats and Skills

Stats and skills represent your character's influence upon the interstellar environment of space, as well as your character's influence upon the other stars you will meet.

Stats

For all stats, higher is better. Two stats may be reduced over time, while the other two remain fixed. Stats are assigned based on the Spectral Class. When the character evolves into the next Spectral Class, all stats are set to the new values specified for the Spectral Class. For information about Spectral Classes, see the chapter *Choose Your Path*.

Surface Temperature

This stat is a pool of Kelvin that may be spent to throw coins when using a skill. Once drained, your character will evolve into the next Spectral Class, which sets the Surface Temperature to something greater than zero. Kelvin may be spent by choice, for no reason, at any time, without tossing any coins. This is useful for when there is nothing better to do but burn time (Get it?).

Mass

This stat is a pool of Solar Masses. It can be drained when bad things happen. If a star loses too much mass, it will devolve into the stable state of star death described by the Spectral Class.

! In *We are all Star Stuff*, Mass is actually measured in ¼ Solar Masses for math reasons, but ¼ Solar Masses is awkward to say.

Luminocity

This stat represents how bright a star is, measured using the Yerkes spectral classification. Luminocity determines the maximum number of coins that may be thrown when using a skill. If Luminocity is 3 and a character has spent 15 Kelvin to use a skill, the player may toss three nickels. The player may not spend two nickels and five pennies, as this is seven coins (higher than the Luminocity). With a Luminocity of 1, the player may only toss a single coin; the amount of Kelvin spent must thus be the face value of some coin.

> **! Math note:**
> **It is advantageous to flip more coins than fewer whenever you can.**

Burn Rate

This stat represents how quickly a star can burn through its fuel. More massive stars burn faster. This represents the maximum amount of Kelvin that may be spent when using a skill. If a character has a Burn Rate of 5 Kelvin, then the player may not spend more than 5 Kelvin when using a skill. Dimes would be useless for the player in that case.

Skills

Skills are used when the story needs a decision to be made that is outside the control of mere narrative. If there is a contest of skill between two stars, players controlling the stars will decide how much Kelvin to spend (this is then subtracted from Surface Temperature), decide how many coins to toss (limited by Luminosity), and then toss the coins.

After adding the coin values together (doubling each coin's value that shows tails) to get total Kelvin, the character with the highest total Kelvin wins the contest. It is possible for the minimum possible Kelvin of one character to beat the maximum possible Kelvin of another character; when that happens, tossing coins isn't necessary.

The use of any and all skills are restricted equally by stats for spending Kelvin and tossing coins. This skill list is a suggestion. Players should feel free to come up with new skills that the group can agree upon.

Gravity

Gravity attracts bodies into orbit around your character. Sub-stellar bodies that can fall into your character's orbit include Brown Dwarfs, superplanets, planets, planetoids, and asteroids.

Stellar Wind

Stellar winds can blow fuel off the surface of a nearby star, send electromagnetic smoke signals millions of parsecs away, and propel artificial constructs made by the tiny specks of life that inhabit some planets. In a contest between two stars, both will toss coins for Stellar Wind. The loser will shed off 1 Solar Mass of precious star fuel from its Mass stat.

Choose Your Path

The life cycle of a star is determined almost entirely by its mass. In *We are all Star Stuff*, you, the player, get to decide your path as a star. Once chosen, the path is set! The player may choose from one of three Main Sequence Spectral Classes: Red, Yellow, or Bright. Each is described below. Once a Main Sequence Spectral Class burns out its Surface Temperature, it evolves to a particular Spectral Class that isn't on the Main Sequence.

Non-Playable Spectral Classes

Protostar

Protostars are the children of the stellar universe. They spend much of their time eating up whatever gases are around. Nebulaes are a favorite feeding ground for stars, yound and old alike. Protostar is not available for playing characters, but every character started its life as a protostar.

Brown Dwarf

The Brown Dwarf is a remnant of what was once a beautiful, shining star … or in some sad cases, the husk of a young protostar cut down before its prime. No longer does the fusion heart of a Brown Dwarf beat.

Black Dwarf

The Black Dwarf is a mythical creature. In the legends, a Black Dwarf is the corpse of a White Dwarf after it has aged beyond its means. The Black Dwarf is said to stalk the black ink of space, searching for misbehaving Protostars to draw into itself. Clearly such a fable cannot be true, for no

White Dwarf has ever died of old age!

Black Hole

Such horrors are not spoken of in good company. It is said that a Black Hole has no Surface Temperature or Luminosity, but can use Gravity to suck in even the most battle-hardened Supergiants with no effort. There are some legends that say not all Bright Dwarves, Blue Supergiants, and Red Supergiants are lost forever when they go Supernova, but continue to throw their weight around in the afterlife as Black Holes.

Playable Spectral Classes

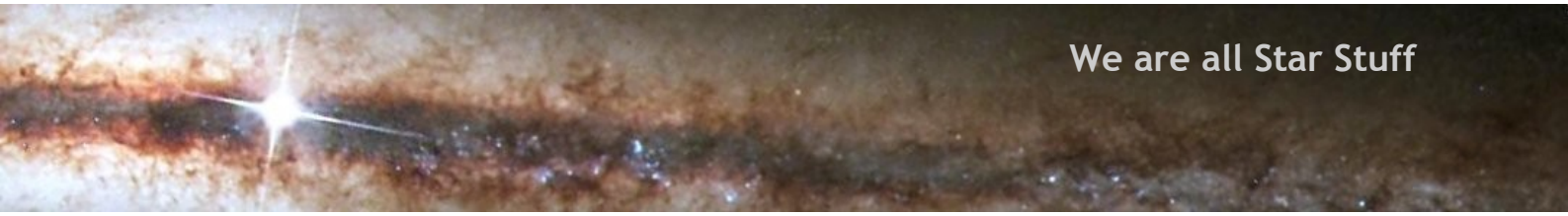
Red Dwarf

Surface Temp	Mass	Lum.	Burn Rate	Evolves to	Dies as
3,000	1	5	10	White Dwarf	Brown Dwarf

The Red Dwarf isn't the most powerful of the Main Sequence stars, but he is the slowest to age. Red Dwarves learn to speak slowly and carry a big asteroid belt, or they spend a lot of time at the local nebula socializing. After the Red Dwarf burns away his Surface Temperature, he evolves into a White Dwarf. If he should lose the last of his Mass, he will leave a Brown Dwarf in his place.

White Dwarf

Surface Temp	Mass	Lum.	Burn Rate	Evolves to	Dies as
--- (5,000)	4	7	10	---	Brown Dwarf?



The White Dwarf is a slow burning fellow. His patience is long and his lifespan longer. Protostars are taught to respect their elders, and none are older than a White Dwarf … besides maybe another White Dwarf, of course. As the pinnacle of the gracefully aged, the White Dwarf does not have to worry about burning away his Surface Temperature or evolving into a different Spectral Class. Stars that have lived this long have learned the wisdom of keeping their Mass in tact.

Yellow Dwarf

Surface Temp	Mass	Lum.	Burn Rate	Evolves to	Dies as
6,000	4	5	25	Red Giant	Brown Dwarf

The Yellow Dwarf is a mellow lass, capable of holding her own in a fight or a good conversation. She is the most likely of any heavenly body to have an infestation of critters on her planets. As a Main Sequence star, the Yellow Dwarf will evolve after she burns away her Surface Temperature; she evolves into a Red Giant. If she should lose the last of her Mass, she will leave a Brown Dwarf in her place.

Red Giant

Surface Temp	Mass	Lum.	Burn Rate	Evolves to	Dies as
5,000	4	3	50	White Dwarf	Brown Dwarf

The Red Giant burns brighter and hotter than her Yellow Dwarf counterpart.

She burns out fast, but she is not one to be trifled with. After burning away her Surface Temperature, the Red Giant will evolve into a White Dwarf. If she should lose the last of her Mass, she will leave a Brown Dwarf in her place.

Bright Dwarf

Surface Temp	Mass	Lum.	Burn Rate	Evolves to	Dies as
18,000	40	5	30	Blue Supergiant	Supernova

This is the most massive of the Main Sequence stars. The Bright Dwarf is sometimes called the Blue-White Dwarf. He is the heaviest of the Main Sequence stars and can throw his weight around with his high Burn Rate. The Bright Dwarf evolves into a Supergiant once the Surface Temperature is burnt away. If he should lose the last of his Mass, the Bright Dwarf will erupt his Surface Temperature into a Supernova leaving no trace behind.

Blue Supergiant

Surface Temp	Mass	Lum.	Burn Rate	Evolves to	Dies as
30,000	40	1	50	Red Supergiant	Supernova

The Blue Supergiant is one of the most feared of the heavenly bodies. He burns hot, he burns bright, and he is the most likely to think he can take on a Black Hole in a bar fight at the local nebula; he might even be right... The Blue Supergiant evolves into a Red Supergiant after burning away his Surface Temperature. If he should lose the last of his Mass, the Blue Supergiant will erupt his Surface Temperature into a Supernova leaving no

trace behind.

Red Supergiant

Surface Temp	Mass	Lum.	Burn Rate	Evolves to	Dies as
--- (4,000)	40	1	50	Supernova	Supernova

The Red Supergiant is a shadow of his former Blue Supergiant self. He can burn just as hot and just as bright, but he will run out of fuel quickly. Instead of burning Surface Temperature, the Red Supergiant burns his own Mass. Once the Red Supergiant burns away the last of his Mass, his Surface Temperature will erupt through the heavens as a Supernova. The Red Supergiant is doomed to a short existence.

Adventures in Space

White Dwarf seeks Companion

The venerable White Dwarf is frequently found in Binary Systems. It is a lonely White Dwarf that wanders the skies alone. Help a lonely White Dwarf find a companion to share its orbit with.

Mythical Black Dwarf

Seek out a mythical Black Dwarf. Rumor has it that Black Dwarves sneak through the darkness, sucking the fuel from gas giants and Supergiants alike, and burn the fuel as a disguise to look like a White Dwarf. Inexplicably drained gas giants and stars often raise accusations of Black Dwarf against local White Dwarves.

Explore a Wormhole

Wormholes are known to connect large distances across space through a much smaller tunnel. Some of these tunnels contain a pocket universe, frought with unknown perils. Unexplored wormholes can pose an incredible threat: what looks and feels like a wormhole could be a Black Hole.

The Dark Energy monster

The following represent a series of adventures with Dark Energy as the main antagonist. The main protagonist is the Grizzled White Dwarf, who is said to be older than time. His knowledge is that of secrets. When

and why he chooses to reveal those secrets is a mystery to all but him.

The Big Crunch

The end is coming! The growth of the universe boundary has slowed to a stop, and rumors are that it is starting to come backwards. Every star knows if the universe's boundary shrinks down to nothing, there won't be anyone left to cavort with! The Grizzled White Dwarf will tell brave stars about the legend of a monster, called Dark Energy, who was trapped in a pocket universe shortly after the Big Bang. The monster could pull space-time apart completely if left to its own devices, but now that reality is contracting upon itself, that might not be such a bad thing. The universe could use some pulling right now!

If the party is able to release the Dark Energy, see *The Big Rip*. If not, see *The Big Bounce*.

The Big Bounce

The known universe is contracting into a Big Crunch. The only escape is to leave the known universe. Prophecies have foretold that wormholes will always have something on the other side, maybe even other universes. The mysterious pocket universes sometimes found within wormholes might themselves exist in an alternate reality. The Grizzled White Dwarf suggests a mission to gather two of each stellar body (and as much interstellar gas as your orbit can hold!) into a pocket universe to wait out the Big Crunch. He insists there will be a universe to return to after the next Big Bang (and also a rainbow for some reason), but nobody knows for certain that there will be a Big Bang after the Big Crunch.

The Big Rip

It seems like the Dark Energy's power is growing with each passing moment. The Dark Energy has begun running itself to the ends of chaos and back. The universe edge is expanding faster than the fabric of the universe can keep up with, and it is all because of Dark Energy pulling everything as it goes. If Dark Energy keeps up like this, there will be nothing left of the universe but a remnant of the Dark Energy and some shredded universe fabric! Some gallant stars must reign in the Dark Energy if there is to be any universe left.

The Big Freeze

The fabric of the universe is not in any kind of peril. The universe is expanding slowly and quietly, or perhaps its expansion has reached its limit. Stars are growing old and cold. Few stellar crèches are spoken of anymore, the last one was seen eons ago. The galaxies have spread unstoppably to villages of globular clusters, and even the globular clusters are turning into open clusters where the sense of law and order and civility is disrupted or nonexistent. The stellar winds carry chatter full of worry that the end of the universe is coming... The prophecies of the eldest White Dwarves are bleak...