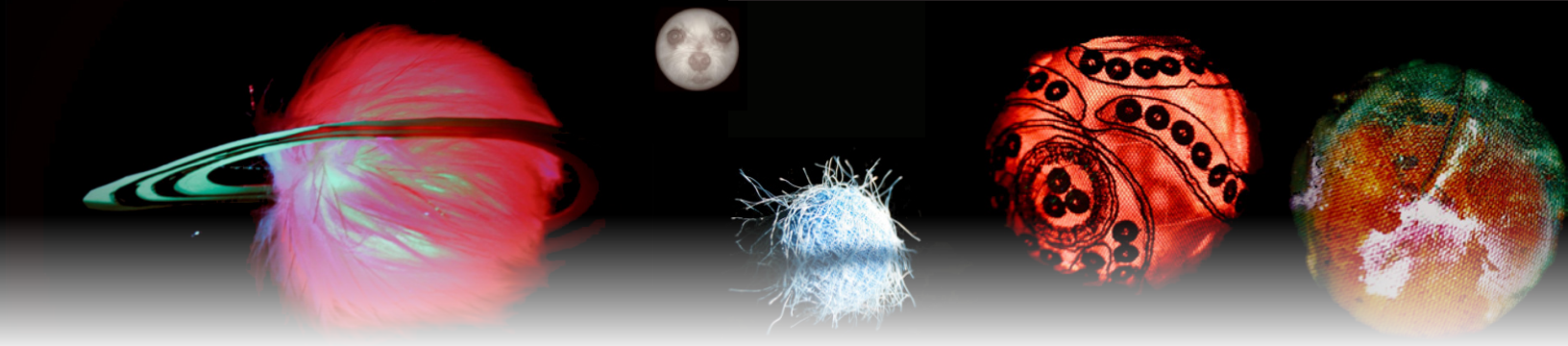


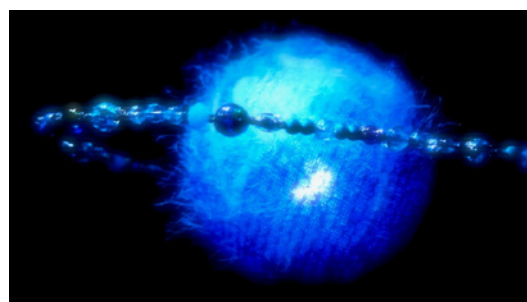


Make Your Own Exoplanet & Extraterrestrial Life

Earth has many environments and different features. There are deep oceans, arctic areas, mountains, forests, deserts, hot springs, and caves, and we have found life in all of these places. The universe is filled with planets that have landscapes ranging from pleasant and familiar to harsh and unfamiliar. We know that organisms may survive only in environments in which their particular needs are met, but we also know that life is diverse and resilient. In this activity, create your own exoplanet by picking characteristics from each category. Later, you will create an alien life form that could potentially survive on the exoplanet you created.

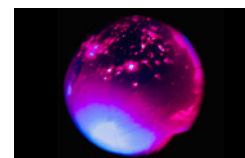
MAIN CLIMATE (SELECT ONE)

- ☐ Desert – *hot, very little water, mainly parched sand*
- ☐ Ocean – *mainly water with only a few land masses*
- ☐ Forest – *CO₂-rich environment that allows tree growth*
- ☐ Polar – *cold, with most of the elements frozen*



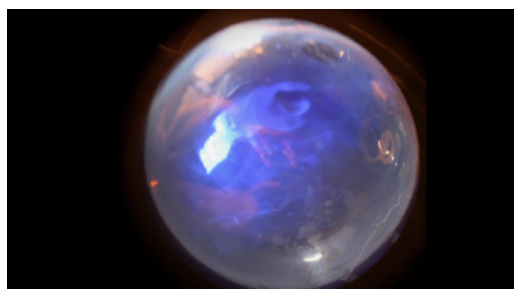
GRAVITY (SELECT ONE)

- ☐ Low – *everything weighs less, so less muscle mass is needed*
- ☐ Earth-like – *things fall normally*
- ☐ High – *creatures need more muscle mass*



LIGHT / ENERGY FROM STAR (SELECT ONE)

- ☐ Low – *creatures need a different energy source or a clever way to conserve/maximize sunlight*
- ☐ Earth-like – *creatures don't need special adaptations unless light does not reach their habitat*
- ☐ High – *creatures need an adaptation that helps them survive radiation*



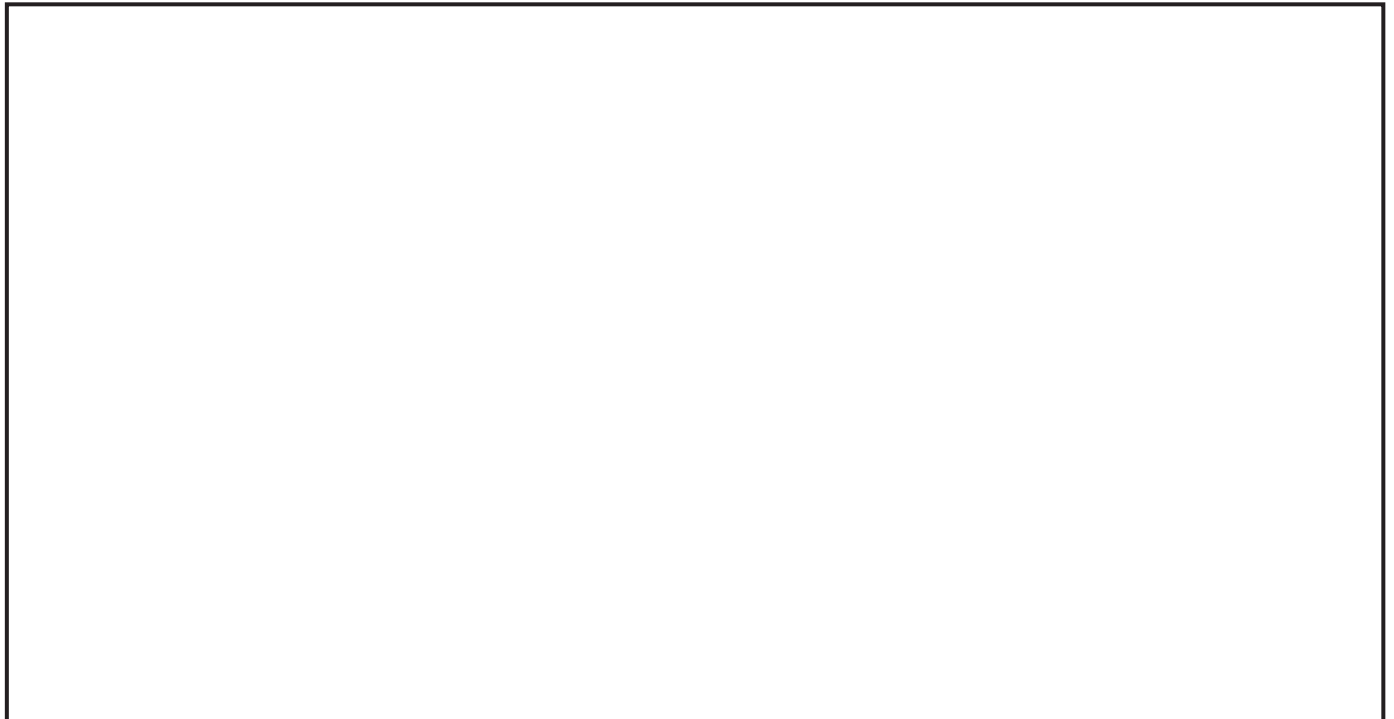
EXTRA MODIFIERS

- | | |
|---|---|
| ☐ Liquid atmosphere | ☐ Active land volcanoes |
| ☐ Helium atmosphere | ☐ Frequent dust storms |
| ☐ Stinky sulfur seas | ☐ Strong winds |
| ☐ Active undersea volcanoes | ☐ Hot rains |
| | ☐ _____ |

MAKE YOUR OWN EXOPLANET & EXTRATERRESTRIAL LIFE CONTINUED...

Describe your planet using the characteristics you picked. You may be as descriptive as you like. Write about what it would be like to live on your world. Details are encouraged describing what vegetation (if any) would look like or if the seas would cover the planet, and so forth. Have fun with this; explain your planet.

Draw your planet. You may choose to draw what it looks like from space, and/or what its landscapes look like up close.



Name your exoplanet: _____

MAKE YOUR OWN EXOPLANET & EXTRATERRESTRIAL LIFE CONTINUED...

What kind of life form would be able to exist on your exoplanet? Choose some different characteristics below that can help your creature survive depending on the planet environment characteristics you picked.



HABITAT

- ☐ Surface
- ☐ Underground
- ☐ Shallow-water or swamp
- ☐ Deep-sea
- ☐ Air/sky
- ☐ Cave
- ☐ _____

TOPICAL

- ☐ Fur – *protects from cold*
- ☐ Scales – *improves speed, protects, and/or reduces water loss*
- ☐ Bio-luminescence – *produces light to communicate*
- ☐ Slime – *improves grip*
- ☐ Feathers – *allows for flying, protects from cold*
- ☐ Tough shell/exoskeleton – *protects from a harsh environment*
- ☐ Plant-matter – *feeds on air and sunlight, responds slowly*
- ☐ Fluorescence – *protects against radiation, glows*
- ☐ Skin – *regulates body temperature in a variety of climates*

EXTRA FEATURES / ABILITIES

- ☐ Antennae – *senses touch, air motion, heat, vibration (sound), smell, and taste*
- ☐ Blubber – *stores energy, insulates heat, improves buoyancy*
- ☐ Echolocation – *may detect objects in their environment by sensing echoes*
- ☐ Metal features – *makes stronger and more durable*
- ☐ Compressible lungs – *may survive in extreme pressures*
- ☐ Chemo-synthetic – *gets energy from chemical reactions instead of sunlight*
- ☐ Super-smell – *may detect objects/creatures in their environment by smell*
- ☐ _____

EXTREMITIES // How many? _____

- ☐ Wings – *allows for flying*
- ☐ Legs or arms with joints – *may run or climb*
- ☐ Fins – *provides thrust, steering, and balance in water*
- ☐ Hooves – *supports weight, provides traction*
- ☐ Claws – *allows protection, digging, and climbing*
- ☐ Flowers/fruits/branches/twigs
- ☐ Tail(s) – *provides balance, supports communication*
- ☐ Tentacles – *flexible, allows for grasping and sensing*
- ☐ _____

SIZE

- ☐ Giant
- ☐ Medium
- ☐ Small
- ☐ Microscopic

MUSCLE

- ☐ Bulky
- ☐ Lean
- ☐ Frail

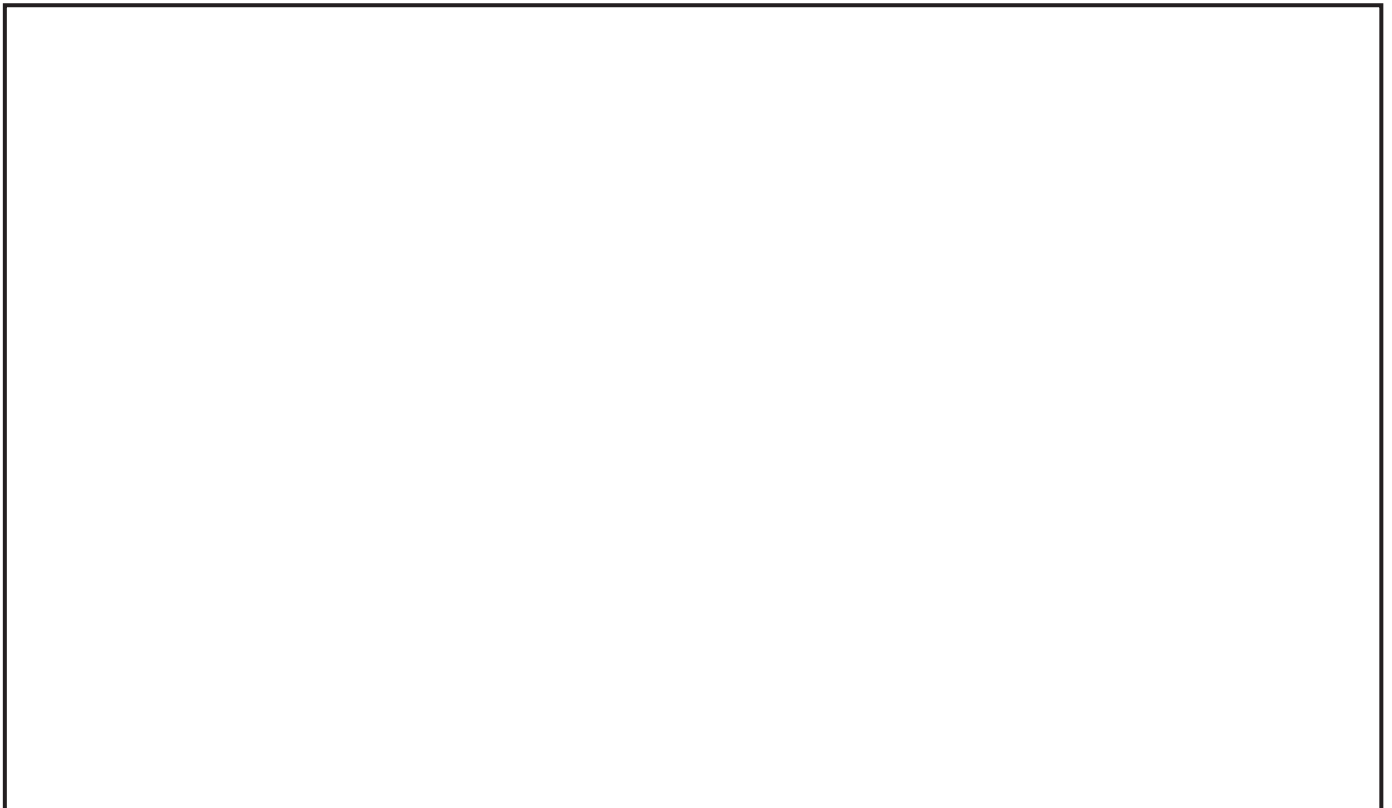
EYESIGHT

- ☐ Super
- ☐ Average
- ☐ Weak/none
- ☐ Night-vision
- ☐ Infrared

MAKE YOUR OWN EXOPLANET & EXTRATERRESTRIAL LIFE CONTINUED...

Describe your alien life form. Explain why your creature would be able to survive on the exoplanet you made.

Draw what your life form would look like using the characteristics you chose.



Name your species: _____