



cards, drawing sheet, crayons (or colored pencils or markers).

Look at the cards. They show living things that thrive in extreme environments: places where humans cannot live. Think about how each one survives. What adaptations do they have?

Imagine a planet with an environment too harsh for people. Is it too hot? Too cold? Too dry? Draw the environment you imagined on the drawing sheet.

Draw a life form that could survive in your imaginary environment. It can be one you see on the cards or one you invent! You could also write a description.

Questions to consider:

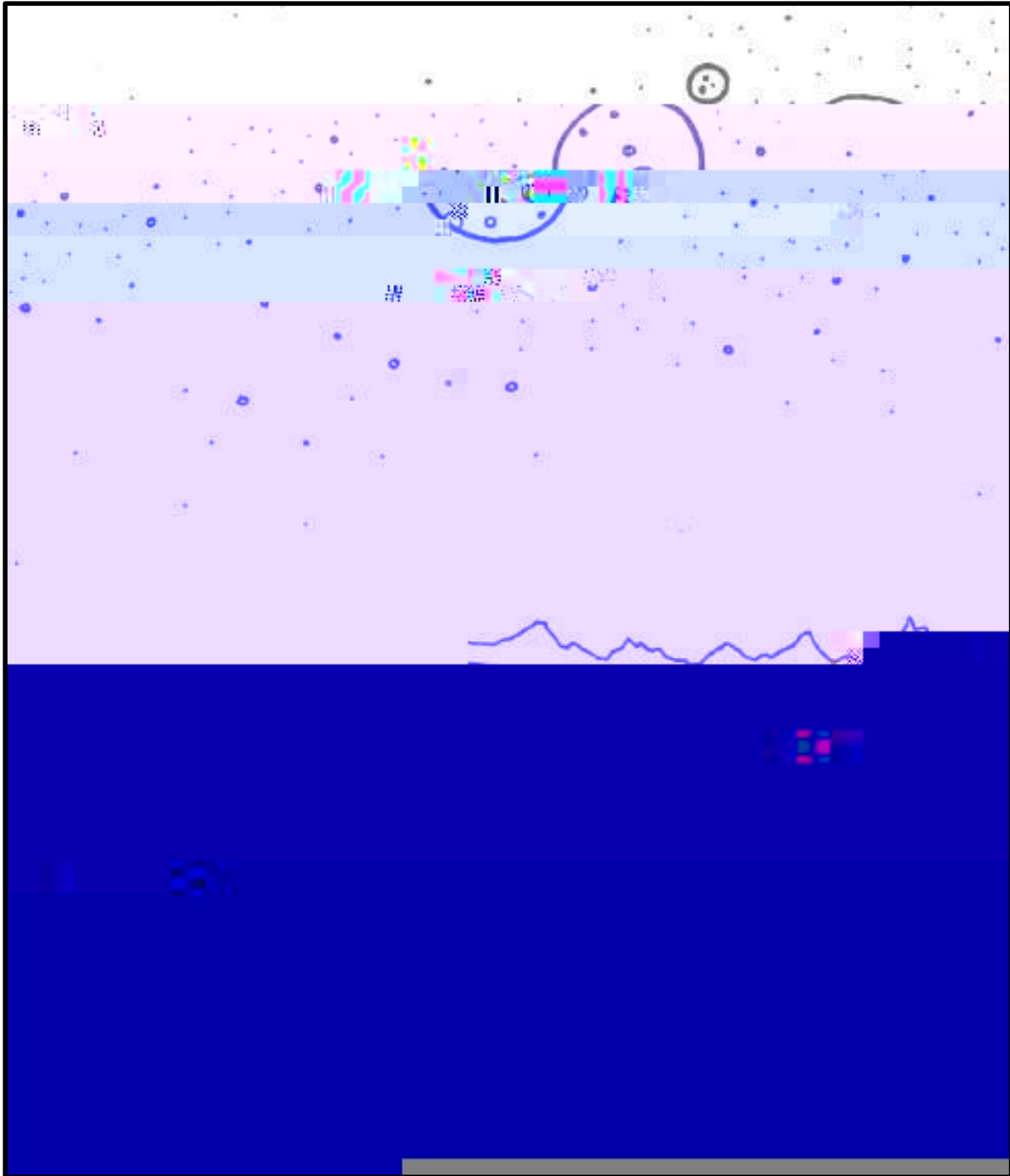
- How big is your creature?
- Where does it live? What does it eat?
- How does your creature adapt to its environment?
 - @ dry, how does it find water?
 - @



What do YOU think alien life would look like?

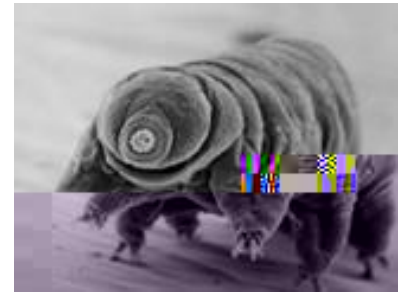
If we do find life in outer space, should we bring it back to Earth?

How important is it to find life in the rest of the universe?



Scientists study life on Earth to make predictions about what kinds of life forms could exist on other worlds.

Some living organisms, called **extremophiles**, thrive in very harsh environments, including volcanic vents deep in the ocean, dry deserts, cold ice sheets, dark acidic caves, and many more. Each of these living things have adaptations to help them survive in their environment.



astrobiologists

to make predictions about what kinds of life forms could exist on other worlds. Studying extremophiles and their environments can help us understand the possibilities.

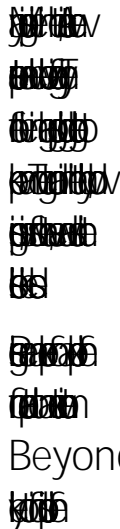
Tardigrade

This tiny animal is one of the most durable life forms on Earth.

Imagining Life: Extreme Life Cards

Emperor Penguin

These birds have adapted to survive in bitter cold.



NOAA NESDIS, ORA / Michael Van Woert

Beyond Earth, scientists think we're more

Barrel Cactus

These special plants are well suited to the high, dry desert.



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found on other planets. But we haven't yet

Flowers Pictures

Snow Algae

Snow algae survive on mountaintop snow and ice.

Researchers

have discovered

that it's actually huge

and

scientists

are trying

to determine if Jupiter's moon

Europa

has

Richard and Pam Winegar

Yeti Crab

This crab thrives on the deep, dark ocean floor.

Researchers

have discovered

that it's actually

huge and

scientists

are trying

to determine if life

exists on Europa

*University of Hawaii Manoa,
MoraLab / Enrique MacPherson*