

Make an Alien

Estimated Time: 30-45 minutes

SUMMARY

Animals have adaptations that allow them to succeed in their environment and get enough food to survive. Students will create an alien world and then invent creatures to fill it!

WHAT YOU'LL LEARN

- Types of animals, diets, and ecosystems.
- Animal adaptations for environment and behavior.

Materials Used	Resources Used (all optional)
<ul style="list-style-type: none"> • Paper (at least one per student) • Pen or pencil • Crayons, markers, or paint • Six-sided die (optional) 	<ul style="list-style-type: none"> • Internet for research • Nature documentaries • Wildlife books

WHAT TO DO

1. Begin by discussing the premise: students are going to invent aliens to inhabit a far away world very different from Earth. They will come up with the conditions first and then think of animals to live there.
2. Determine what sort of world you want to create for your aliens. Individually or as a group, pick one of the options from the table below. If you would prefer, you can use a six-sided die to randomly determine this. If you don't have a die, you can draw these different types of worlds out of a container.

Number	Result	Number	Result
1	Ice world	4	Bright world
2	Desert world	5	Water world
3	Dark world	6	Mountainous world

3. Add a new element to the world, something in the environment for your aliens to navigate. For each world, pick one of the elements from the table below, roll to randomly determine it, or pull that element out of a container.

Number	Result	Number	Result
1	... with deep forests	4	... with massive predators
2	... with many caves	5	... with lots of volcanoes
3	... with powerful storms	6	... with wide plains

4. Finally, determine what sort of alien you are making.

Number	Result
1	Predator (eats other animals)
2	Herbivore (eats plants)
3	Scavenger (eats dead animals)
4	Omnivore (eats both animals and plants)

5	Filter Feeder (eats clouds of small things)
6	Detritivore (eats dead plants)

5. Draw the alien and color them. Be sure to give them a name and label any parts of the alien that are adaptations for surviving.
6. When everyone is done, share your aliens and talk about what their adaptations are. If everyone is excited to try, go through the steps for another round and see what new aliens you come up with!

TIPS

- For younger children and students trying this for the first time, make sure they know that they have the option to pick. This can allow them to choose a planet that they are more comfortable with. Once they fully understand the activity, though, randomly determining things can spark creativity and learning.
- While many students prefer to have their own planet to work on, making up multiple aliens for the same planet allows you to discuss how they interact. Does this herbivore live near that omnivore? Does that scavenger eat the leftovers from that predator? Remember to consider young emotions when doing this, though: a student who creates their own alien might feel frightened and upset if another alien at the table eats theirs! It sometimes works well in the other direction: if a student has made a predator, have them think of a prey alien that it eats.
- Doing this activity multiple times allows students to get more creative and comfortable with inventing an alien. If they are interested in expanding, they can develop their world by inventing multiple aliens for the same planet. This activity can also turn into a game of pretending to be “Xenobiologists” (biologists of aliens) and can expand to other play activities of discovery and study. Once they have described an alien that eats tree leaves, for example, they might explore the backyard to “study” the forests where they live and spot other aliens. What alien birds live in the branches? What alien bugs live in the dirt? What alien lizard-squirrels crawl up the trunks?