

# How Will Your Animal Survive?

## OVERVIEW

Mix art and science! Create a imaginary animal with real adaptive traits that allows it to survive in its environment.

## WHAT ARE WE LEARNING?

In this activity you learn all about different animal adaptations and create a unique work of art!

### Materials

There are a variety of materials that can be used for this activity!

- Access to internet or books to research about adaptive traits
- Paper or cardboard (if you are gluing on objects you'll want cardboard or a thicker, stiffer paper)
- Markers, crayons, and/or colored pencils
- (Optional) Glue and/or tape. Tacky glue works well.
- (Optional) Craft items and/or recycled materials\*
- Downloaded worksheet or piece of paper + pencil
- (Optional) Downloaded research worksheet

*\*Examples of recycled materials that work well for crafts: Ribbons from gifts, bread tabs, cut up straws, bottle tops, packaging material, paper grocery store bags, art that come home from school or daycare that was not being saved.*

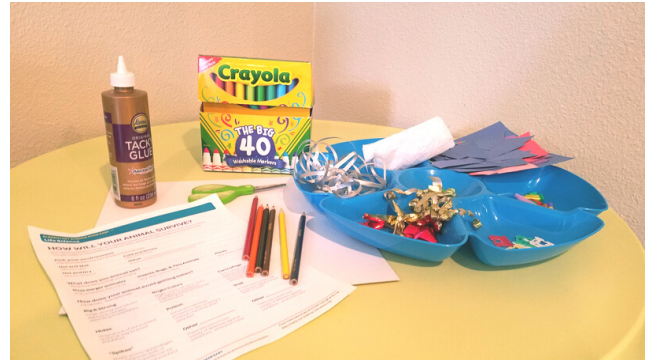


Image 1: Supplies - we used a combo of recycled materials and craft materials



Image 2: Mix of recycled and craft materials

## INSTRUCTIONS

1. Download and print (if possible) the worksheet for "How Will Your Animal Survive?" Review the traits, diets, and habitats that are listed. You can also download the optional "Research" sheet.
2. Research different adaptive traits animals have. You may also want to research habitats. Here are a list of suggested resources:
  - "Animal Adaptations & Characteristics" and "Animal Behaviors" from PBS Kids (has many videos on specific animals)
  - "Adaptation" from National Geographic (video database)
  - "Amazing Adaptations of Ocean Animals" from Sea World
  - Under "Free Resources" at STEMTradingCards.org Science Delivered has a "teacher background" with information about adaptations
  - If you are interested in books, we like the "Adaptations" series by Julie Ann Murphy and "What if you had Animal [trait]" by Sandra Markle

## INSTRUCTIONS (CONT)

- (Optional) Write down your favorite adaptive traits on your "Animal Adaptation Research" worksheet. (If you do not have a printer, make your own worksheet or write in your science journal!)
- Take out your "How Will Your Animal Survive" worksheet (or view it on the computer) and pick the environment, diet, and defenses for the IMAGINARY animal you will create. On the back, write what other traits your animal has that will help it survive.
- Time to do the art! Create your animal, and also its habitat, predators, prey/food or whatever else! You can simply draw or you can use crafts and recycled materials. Be creative!

**NOTE: Make sure the traits you are giving your imaginary animal are specific for its environment and diet. For example \*do not\* give an animal living in a hot environment blubber and a thick fur coat (it would overheat). You might consider: How does your animal capture its food? How does it find water? Is it nocturnal or diurnal? Does it live in groups or solo? Older children should be able to consider more survival factors than younger children.**

Did your child get really into creating their animal? Have them make an entire ecosystem! They can learn the parts of the food web (primary producers, primary consumers etc.) and make imaginary plants and animals that fit each part.



Image 3: Created by a 2nd grade student, this animal that eats plants, lives in a hot and wet environment (see rain on top), is big and strong, and has spikes to ward off predators. The student used beads, fabric from a broken toy, shiny strips that used to be part of a party banner, a piece of a straw, markers and other items to create their art.



Image 3: This 2nd grade student made two animals with a variety of recycled materials!



Image 4: The animal on the left camouflages by looking like nearby cacti. On the right, an animal hides from its human predator.

# Science at Home: How Will Your Animal Survive?

## THE SCIENCE

Please refer to resources provided in step 2 in the instructions for more information about animals and their adaptive traits!

*The Next Generation Science Standards (used in many states) have standards related to animals in nearly all elementary school grades. This activity particularly goes with 2nd grade standard 2-LS4-1: Make observations of plants and animals to compare the diversity of life in different habitats and 3rd grade standard 3-LS3-2: Use evidence to support the explanation that traits can be influenced by the environment.*

## ADVICE FOR DOING SCIENCE WITH YOUR KIDS

- Encourage exploration and curiosity - science is about a lot more than facts and content (although these things are important too!)
- Consider writing down your child's questions and ideas during the activity. You may be able to turn these into a future research project or activity!
- You might consider getting a dedicated science journal for your child where they can keep all their thoughts and ideas and notes on their experiments.
- Do not worry about not knowing the answer to questions. 1. Many "simple" kids science activities have very complicated, or even unknown(!) science behind them. 2. Even scientists will often not know the answers to questions outside their field. No one knows everything! Be honest about not knowing the answer and suggest trying to figure it out together.
- Deviations from exact instructions can often be fruitful - especially if the child has been inspired and wants to try out another line of investigation.
- In many states, the science standards are called the "Next Generation Science Standards," or "NGSS." They are a little complicated to parse through but in essence they want student to learn not only content (called "disciplinary core ideas" or "DCI") but also the practices scientists and engineers use ("scientific and engineering practices" or "SEP") and also concepts that cut across all fields ("crosscutting concepts" or "CCC").

