

# BUILD AN ANIMAL SHELTER

## STEM CHALLENGE

Design and build a small shelter that protects an animal from "the elements" like wind, rain, or sunlight. Consider how animals use natural materials in their environment to create shelters and the importance of shelter for survival.



### INSTRUCTIONS:

**Design Phase:** Have students sketch a simple design for their animal shelter. Ask them to think about what the animal needs to stay dry, warm, or safe from predators.

**Build Phase:** Using the provided materials, students will build their shelters. They can work individually or in teams.

**Test Phase:** Simulate "weather" by using a small spray bottle to mimic rain or a fan to create wind, and see how well the shelters hold up. Or if possible, place the shelters outside for a set period of time.

**Reflection:** Have students discuss why shelter is important for animals and what they learned about designing structures that protect living things.

### REFLECTION QUESTIONS:

**How did you decide what materials to use for your shelter?**

**What were your reasons for choosing certain materials?**

**How did they help meet the needs of your animal?**

**What was the most challenging part of building the shelter?**

**Did you have any problems with stability, materials, or design?**

**How did you solve those problems?**

**How well did your shelter protect the animal during the "weather" test?**

**What worked well? What would you change to improve the shelter's performance?**

**How do animals in the wild find or build their shelters?**

**What environmental factors did you consider when building your shelter?**

**If you were to design a shelter for a different type of animal, what would you change?**



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## Plan Your Shelter

### Checklist:

Shoe box or cardboard box

Animal figurines or cutouts

Scissors

Paper

Assorted materials: pipe cleaners, popsicle sticks, etc

Natural materials (twigs, leaves, sand, cotton balls for snow)



Sketch your shelter design here.

Write down ideas or important details.