

Visible Elements in Photo



- Dry, tan-colored grasses and low vegetation in the foreground
- Dense forest of bare or sparsely leafed trees in the background
- A deer partially visible in the tall grass (right side of frame)
- Mixed brown, tan, and cream coloring throughout the landscape
- Natural camouflage effect: the deer blends into its surroundings

Reasonable Inferences

- From the deer's coloring matching the grasses: Animals in this habitat have evolved colors and patterns that help them hide from predators and threats by blending into their environment.
- From the dense forest backdrop: This ecosystem provides shelter, but the open grass area exposes animals; creatures need strategies (like camouflage) to survive in exposed spaces.
- From the time of year (bare trees, dried vegetation): During fall/winter, this habitat becomes more exposed, making effective camouflage even more critical for survival.

Engineering Task

K-2 Challenge:

Make a hiding place for a toy animal using only natural materials (leaves, grass, sticks, dirt) so it matches the colors around it. Can you hide your animal so a friend can't find it in 30 seconds?

3-5 Challenge:

Design a camouflage shelter for a small animal (use a toy or model) that must:

- Blend in with a natural outdoor setting (grass, leaf litter, or a prepared outdoor plot)
- Be no larger than 12 inches x 12 inches
- Use only natural materials found on school grounds
- Remain hidden when a partner views it from 5 feet away for at least 20 seconds

Test your design by having classmates try to spot the shelter. Redesign based on what they find too easily.

EDP Phase Targeted

Ask / Define Problem — This photo shows a real survival need in nature (avoiding detection), not a solution already being built. Students must first understand why camouflage matters before designing one, making problem definition the natural starting point.

Suggested Materials

- Dried leaves, grass clippings, and plant stems
- Small twigs and bark pieces
- Soil or sand

- A toy animal or small object to hide
- Colored paper or fabric scraps (optional, for comparison testing)
- Ruler or measuring tape (3-5 only)

Estimated Time

- K-2: 20–30 minutes (material gathering + building + one testing round)
3-5: 45–60 minutes (planning + building + testing + redesign reflection)

Why This Works for Teachers

This task directly addresses NGSS K.ETS1.1 / 1.ETS1.1 (asking questions and defining problems based on observations of the natural world) while making camouflage a tangible engineering challenge rather than a passive nature lesson.