INVENT A PLANT – ADAPTATION

Overview

Most animals can move to a new location when wind, water, heat, cold, sunlight, dryness, or other animals become a problem. Although plants cannot move to avoid unfavorable conditions, certain characteristics compensate for immobility, allowing them to live and reproduce in particular environments. The special characteristics that allow plants to survive in specific environments are examples of adaptation. An **adaptation** is any special feature of an organism that improves its chances of surviving and reproducing.

This activity will enable participants to recognize that plants, as well as animals, are uniquely suited to their habitats. Using imagination and some craft materials, students construct models of plants that are "adapted" to survive under specified environmental conditions.

Challenge

Construct a model of a plant that is adapted to a particular habitat.

Materials

Liquid plastic film such as Fantasy Film, Fun Film, Form-A-Fil, etc. (or cellophane, plasticene, or any material for constructing models of plants)

Roll of floral tape
Scissors
Wire (thin aluminum works well)
Small Styrofoam, clay, or egg carton base to support wire frames while plastic is drying

You can obtain these materials at craft or hobby shops.

Action

1. Distribute the Action Cards. Each card has a different problem for the participants to solve. If the children have difficulty inventing, encourage them to observe some of the real plants in the area.

- Invent a plant which is lawnmower-proof.
- Invent a plant that can live on the surface of a pond.
- Invent a plant so it can withstand high winds.
- Invent a plant that grazing animals would not eat.
- Invent a plant that can hold on to rocks in swift rivers and streams.
- Invent a plant to catch insects.
- Invent a plant adapted to sore water
- Invent a plant that can compete with other plants for sunlight.

a. Form the wire into a basic petal or leaf shape and contour it as you desire.
b. Dip the shaped wire into the Fantasy Film
c. Stand wire in Styrofoam or clay to dry.
d. Group petals together into flower or plant form.
e. Wrap stems with floral tape
f. Add plastic leaves to stem as you wrap it.

2. The preceding directions explain how to use the plastic film. (These instructions also appear on the back of each Action Card.)

Caution: Work in an open area to prevent inhalation of the plastic-film vapors.

3. When everyone has finished making a model plant, gather the group together. Have participants make inferences about the probable habitat and unique features of each plant.

WHAT DO YOU THINK?

- Decide where each plant would be best suited to survive.
- How would each plant be unsuited for different habitats?
- How are plants adapted to seasonal changes?

FOLLOW THROUGH

Find real plants that have the same adaptations that the models have.

WHAT TO DO NEXT

Habitat Sun Prints
Seed Dispersal
Plants Around a Building

TECHNIQUE CARD
INVENT A PLANT

How to use plastic film:

a. **Form the wire into a basic petal or leaf shape and contour it as you desire.**
b. **Dip the shaped wire into the plastic film.**
c. **Stand wire in Styrofoam or clay to dry.**
d. **Group petals together into flower or plant form.**
e. **Wrap stems with floral tape.**
f. **Add plastic leaves to stem as you wrap it.**

TECHNIQUE CARD
INVENT A PLANT

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TECHNIQUE CARD
INVENT A PLANT

g. **Form the wire into a basic petal or leaf shape and contour it as you desire.**
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i. **Stand wire in Styrofoam or clay to dry.**
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Invent a plant to catch insects

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Invent a plant adapted to store water

ACTION CARD
INVENT A PLANT

Invent a plant that can compete with other plants for sunlight.