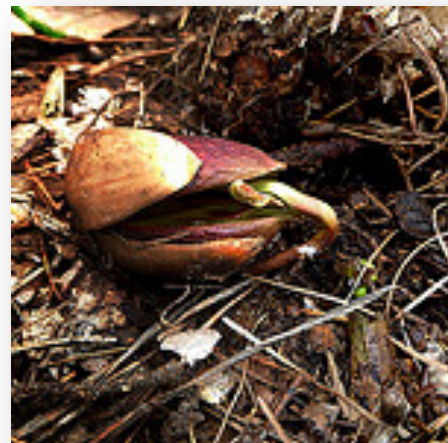




What Are The Chances?

Activity

Plants inherit traits from their parents just like animals do. These genetic factors help them survive and reproduce. In the reproductive process, some plants produce flowers that must be pollinated by either wind or animals. Flowers produce fruits that are eaten by other animals. Inside the fruit are seeds that are carried in the animals' digestive tracts and deposited some distance away from the parent plant. That area may or may not be suitable for the seed to sprout. Suitability is due to environmental factors such as soil type, amount of rainfall, and amount of sunlight.



Procedure

1. Use the data table to collect information for six different plants.

Plant	Original Genetic Factors	Original Environmental Conditions	New Environmental Conditions	Predictions for survival/adaptations needed
1				
2				
3				
4				
5				
6				

2. Roll the die for the first plant. Match the number on the die to the correct row on the Genetic Factors and Local Conditions for Plant Growth chart.
3. Using the Genetic Factors and Environmental Conditions for Plant Growth sheet, list the genetic factors (method of seed dispersal) and environmental conditions (soil conditions, amount of rain, animals present, amount of sunlight) that allow that plant to survive.
4. Roll the die again to determine a new environment (soil conditions, amount of rain, animals present, and amount of sunlight) and make predictions for the survival of the same plant in the new environment.



What Are The Chances?

Activity, continued

What conclusion can you make about genetic factors and environmental conditions based on this activity? Write a scientific explanation describing the effect of environmental and genetic factors on the survival of plants.

Claim:

Evidence:

Reasoning: