

Sitting quietly in nature and observing the life and patterns going on around you can be a relaxing experience. Recording your feelings, thoughts and observations in a Nature Journal will help you reflect on the experience and can set the stage for future observations and reflections.

Vulture Airplane Challenge

Watch the “Vulture EdVenture” video to become more familiar with vultures, including their important role in the ecosystem and interesting behaviors. Then take the Vulture Airplane Challenge and design a paper airplane to soar far and long, like a vulture.



Did you know?

Soaring birds that we see over land typically take advantage of rising air currents called thermals. These updrafts are generated when one part of the landscape, like a parking lot or open field, heats up more than its surroundings. The heat from the ground then warms the air above it, and the warmer air rises and creates a thermal. Many birds like hawks and vultures take advantage of these columns of rising air by flying in circles that spiral upward as they ride the thermal. A group of birds that is soaring in a thermal is called a ‘kettle.’ Once a bird reaches the maximum height of the thermal it may glide down across the landscape. Soaring up in a thermal and then gliding down across the landscape helps birds move great distances without expending the energy of flapping their wings.

Materials:

Different types of paper for building paper vulture-airplanes
Tape measure
(or long piece of yarn/string and a ruler)
Timer or stopwatch
Scissors and tape *(optional)*
Crayons, markers, or colored pencils
(optional)

Instructions:

1. Construct 3 or 4 paper airplanes out of different types of paper and in different shapes. Use scissors and tape if necessary. Use crayons, markers, or colored pencils to decorate your airplanes to look like vultures!
2. Name each of your vulture-airplanes so you can keep track of them as you run trials.
3. In your journal, record two predictions:
 - a. Which of your airplanes will glide the farthest? Why?
 - b. Which will fly for the longest time? Why?
4. Test your airplane designs for longest flight distance and longest flight time. You can conduct this investigation indoors or outdoors but remember to keep it consistent across trials. Remember:
 - a. Always start at the same designated line to launch your airplane.
 - b. Hold your planes with your fingers in the exact same spot every time.
 - c. Try to use the same amount of force when you throw them.
5. Test for longest flight (*distance*) by measuring the distance each airplane flies using a tape measure or a long piece of string/yarn and a ruler.
6. Measure the longest flight time by using a stopwatch or timer.
7. Repeat your tests at least 3 times for each vulture-airplane.
8. Record your data in your journal. See the example below for an idea on how you can create a data table.

Hint: For more fun, include others in your household and hold a competition!

Example Data Table:

Design Name	Flight Trial Type	Trial #1	Trial #2	Trial #3
Vult-air	Distance	6.1 meters	5.8 meters	6.6 meters
	Time in Air	2 seconds	1.9 seconds	2.2 seconds

Having fun?

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