

# Bird Intelligence Hands-On Activity

## Learning Objectives

TEKS: §112.26. Science, Grade 6, Adopted 2021

(E) Organisms and environments. All living organisms are made up of smaller units called cells. Ecosystems are organized into communities, populations, and organisms. Students compare and contrast variations within organisms and how they impact survival. Students examine relationships and interactions between organisms, biotic factors, and abiotic factors in an ecosystem

## Step 1: Gather materials

- Narrow clear cylindrical containers
- Large tweezers or other clasp tool (too large to fit into the cylinders, simulating a crow's beak)
- Water
- Rocks
- Acorns
- Foil/waterproof paper
- Sand
- Pipe cleaners
- Laptop/Tablet
- Handout of Aesop's [story](#)

## Step 2: Setup

- Fill one cylinder with water, and a second cylinder with sand
- Float a piece of foil or paper on the water, and drop one in the sand
- Using the clasp tool, ensure the surface items are just out of reach, and adjust the water/sand levels if necessary
- Place tools and environmental items in a row in front of the cylinders, in no particular order
- Queue up the [video](#) explaining crow intelligence on the laptop or tablet
- Place the story handouts next to the laptop

## Step 3: Explanation

- Ask the audience how smart birds are, and get people engaged in the topic
- Introduce the activity, explaining that they must retrieve either of the objects from the containers, giving minimal parameters to encourage creativity
  - Give no indication what tools to use or how to use them
  - The containers themselves may not be moved
- If they ask for help, guide them without referencing water displacement
- Explain that crows can solve this problem by adding items such as rocks to the water, until it is displaced enough to bring the item within reach
- Explain that crows do not attempt the problem with sand in the container, showing that they understand displacement applies specifically to liquids
- Share that crows possess the intelligence of a seven year old child
- Ask if they are familiar with Aesop's fables, and the specific story about crows
  - Give them a copy of the story to read, and begin talking to another group if you have time

## Resources

[NY Times Article](#)

[Using the Aesop's Fable Paradigm to Investigate Causal Understanding of Water Displacement by New Caledonian Crows](#)

[How Do Children Solve Aesop's Fable?](#)

[Intelligence of a seven-year-old child](#)

[Problem solving video](#)