

BEAVER DAM CHALLENGE



Indoor Activity

Challenge students to work together (groups of 4 or 5) to build a beaver dam that works! Beavers are nature's most ingenious engineers. This activity lets students be like a beaver and make a beaver dam.

Use the below materials to construct a dam that can block as much water as possible. The dam must reach across the entire width of the "stream" and measure at least two inches in height.

Materials

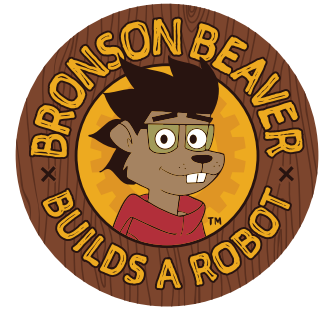
Each group of students will need the following materials:

- Plastic paint tray (Dollar Tree)
- Small sticks and twigs
- Small stones and rocks
- Half-cup Air-dry Clay (Dollar Tree)
- 1/2 cup of water (w/ blue food coloring)
- Paper Towel



Directions

1. Gather materials in advance.
2. Show students videos and photos of beaver dams and lodges.
3. Explain how beavers build dams on rivers and streams to slow the water's flow and form ponds. They do this to build their lodge in the pond to be safe from predators.
4. Distribute the materials to each group; Show them how the water naturally flows to the bottom of the paint tray when poured at the top.
5. Instruct students to build their dam towards the top of the tray using the materials to block the water from reaching the bottom of the tray.
6. Test each dam by placing a folded paper towel in the bottom of the tray and pouring the water at the top.
7. Review and compare the student's dam designs and results and identify the elements of the most effective dams.



CONSTRUCT A STONE DAM

Outdoor Activity

Although beavers are known to build dams mainly comprised of logs, sticks and mud. They're also known to incorporate rocks and stones into their dams.

Challenge students to work together (groups of 4 or 5) to construct a dam outside in a creek or low-gradient stream to slow the flow of water. Adult supervision is recommended. Be sure to disassemble your dam when you have finished playing to not interfere with wildlife or the environment.

Materials

Each group of students will need the following:

- Play clothes that can get dirty
- Waterproof shoes
- Nearby creek or shallow stream
- Stones (from creek) in a variety of sizes



Directions

1. Move large rocks to your chosen construction site and line them up straight across the creek for the dam's foundation.
2. Fill in any large gaps of the dam foundation with medium-size rocks.
3. Next, dig up small pebbles, gravel, and mud from the creek bed to fill in smaller gaps.
4. Congratulations, your dam is complete! You are ingenious as a beaver! Have fun splashing in the deeper water as the creek forms a small pool behind your dam.
5. Be sure to leave no trace and disassemble your dam when you have finished playing to avoid disrupting the environment.

Be Ingenious as a Beaver

Optionally, and if you have enough building materials at your location, try building your dam with logs, sticks, and mud like a beaver.