



Build a Dam

The Task

Build a dam that will hold back water and create a pool.

How?

- Explain how and why beavers build dams - see first two links over page for YouTube clips to show.
- Set the challenge of building a dam that will hold back a set amount of water (a bottle or beaker full).
- Give out trays to participants to use when collecting their resources and to build their dams in.
- Allow participants enough time to roam around and collect the things they think will make a good dam - this might get mucky.
- Call everyone back together and give them a set time to build their dams, you could allow cooperation or competition depending on the group.
- Test the dams by elevating the tray (rest one end on a rubber or stone) and pouring water from the top of the tray and seeing if any gets through the dam - use the same volume of water for each experiment.
- Comparing how long each dam holds the water back for is another good way of testing the effectiveness of the dams.
- Once complete allow the participants a second attempt to see if they can improve their designs.



Considerations

- This could be done completely outdoors, or partially indoors.
- It's going to be mucky so be prepared for this.
- Some might need to work in small teams for this task, others might work better individually, either competing or for fun.



What will you need?

Trays

Water (in bottles or beakers)

Sticks, stones, leaves, moss, mud,
grass, for dam building.



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Organisation & Layout

- This could be done completely outdoors, or partially indoors
- This activity works well with small groups of 2 or 3 pupils or as an individual task.
- Use the trays when collecting dam materials.
- Do not give out the water - pour the water into the trays when you're ready.

Safety Information

- Set a boundary for collection area, ensure you can see everyone.
- Dress appropriately for the weather.
- Children should be informed about any nasty things that could be lurking in the school grounds, glass etc.
- Slippery floors could occur if running this activity indoors.
- Have cleaning things ready for afterwards.

Learning Objectives

- I am learning to assess and manage risk, to protect myself and others, and to reduce the potential for harm when possible.
- I can carry out practical tasks and investigations involving timed events and can explain which unit of time would be most appropriate to use.
- I can describe the physical processes of a natural disaster and discuss its impact on people and the landscape.
- I can consider the advantages and disadvantages of a proposed land use development and discuss the impact this may have on the community.
- I can identify the possible consequences of an environmental issue and make informed suggestions about ways to manage the impact.

Review & Assessment

- How much water did the dam hold?
- How long did the dam hold the water back for?
- Could the design be improved?

Additional Links & Support

[Blairvadach Build a Dam—YouTube](#)

[Why and how Beavers build dams—YouTube](#)

[How Beavers build dams - Kids should see this website](#)

