

Play Resource Presents Science from Scrap

Water Well

You will need:

- Plastic container
- Plasticine
- Cardboard tube
- Gravel
- Sand
- Water



How to use these resources for enquiry in Science/Maths

Pupils will make a model to simulation the scientific phenomenon of how natural water wells are formed. This activity can be used in lessons focused on water, investigating rocks or Earth Science.

Instructions

- Place a ring of plasticine in the bottom of plastic container – sloping downwards into the middle.
- Place the cardboard tube upright in the bottom centre of the container.
- Hold the tube steady and pour a layer of the gravel around the bottom outside edge. Make the gravel layer about 5cm deep. Remember not to pour any gravel inside the tube.
- Pour sand on top of the gravel to form a third layer. Some of the sand will fill gaps in the gravel. Make sure that no sand gets inside the tube. The cardboard tube should stick up above the sand.
- Ask children what they think will happen when you add water to the well.
- Pour water onto the sand and gravel, continuing until the water level reaches the very top of the sand layer.
- Observe the tube—what happens? (Water should begin to rise inside the tube.)

Background Knowledge

In nature, after it rains, the resulting groundwater is absorbed into the earth and is "stored" in the soil. Eventually, enough water is absorbed into the soil so that water pressure builds up in this underground "storage." When we dig a well, this intense pressure forces water into the well, which allows us to reach the water and use it. Knowing where our water comes from is important to understanding why keeping our soil clean is a major concern.

Key Questions

- Where is the water in the well coming from?
- How does the water get inside the well?
- Does the water undergo any change between being poured in and filling the tube?
- What if salty water is used— will the water in the tube be salty?
- How would you test a sample to see if a residue of salt appeared?
- How is this miniature well related to real-life wells?
- Why is it important to be aware of what we put in our soil?

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