

Disappearing Puddles

Focus

When it rains sometimes there are puddles left which slowly 'disappear'. Students have the opportunity to study puddles; observing, measuring and developing hypotheses. This activity makes suggestions for students to design simple tests to validate their ideas about infiltration and runoff.

Materials

- String, or chalk, or sticks, and camera if possible.
- Tape measure or ruler
- Water (measured)
- For extension: spade

Procedure

- For younger children: make a hand print of water on warm bitumen or concrete, even a glass window.
- For older children: Find or make a puddle in the playground. Define the boundary of the puddle by drawing around it or placing a string border around it; (even sticks placed upright into ground would provide a sufficient marker system).
- Measure the changes in size of the puddle.
- Make observations over a day or week, remarking the boundaries.
- Watch what happens over time and describe these in a simple table.

Time	Size	Describe observations (What changes did you see?)

Follow up Questions

- Q How quickly did the puddles disappear?
- Q What was causing the changes?
- Q Where did the water go?
- Q Would the same thing happen if...
- Ask children to predict what might happen if the puddle was located on a different surface, or in the shade, or deeper...

POSSIBLE EXTENSIONS

- Make puddles using the same small amount of water for each puddle. Pour water gently onto a level surface – Use three different surfaces - grass, bare dirt/sand, and bitumen. Choose places that are all in full sun.
- Make puddles on bitumen, but site one in the shade and the other in the sun.
- Make puddles shallow, deeper, same depth as before.

Ask students to:

- Make predictions
- Record observations
- Make statements that reflect their understanding of the phenomena.