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Activity: Watering Soil

http://www.soil-net.com

Find out how the soil absorbs water.

Use a watering can.
Sprinkle water onto the soil.

Pour very, very slowly.

What do you see?

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Now pour faster.

What do you see now?

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Can you say why there was a difference in how fast the water drained away into the soil? Have you noticed the same watering plants at home?

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Soil-net.com Teacher Notes

Activity: Watering Soil

http://www.soil-net.com/cms_home:

This activity helps students understand the important relationship between soil and water. Watering the soil at different rates is equivalent to differing rainfall intensities.

When soil is dry it can absorbs water, like a bath-time sponge. Soil consists of inter-linked 'crumbs' with air and water-filled gaps between them. The ratio of soil crumbs to these gaps varies with different soil types (typically about 35 to 45% air and water).

Water poured onto soil flows down into the air gaps. Clay soils may take longer to wet up, but when they do surface ponding of water can occur, forming puddles. The initial soil wetness present before the experiment is a factor to note to students.

Animals living underground need a lot of air to breathe. If a lot of water soaks into the soil, they must come to the surface to find air. Watering the soil may lead to earthworms appearing.

Discuss how different rainfall intensities can affect the rate of water soaking into soil and water ponding on the surface. Lots of rain falling throughout a day may soak away, whereas the same rainfall falling in one hour may cause surface ponding to form (puddles).

Ask students to try this at home, for instance watering the garden if they have one. Do they notice a difference - is the soil type different? Soil types can vary over very short distances - even a few 100metres!