

Permeability - Student Activity

When fragments of weathered and eroded rock form soils and sedimentary rock small spaces or pores are left. If these spaces are joined up water can move through them. They are permeable.

Sand will allow water through. Sand is *permeable*.

Clay will not allow water through. Clay is *impermeable*.

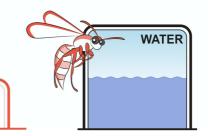
Permeable soils allow water to reach plant roots and percolate to replenish underground reservoirs.

Testing soils for permeability

Materials required per student or group:

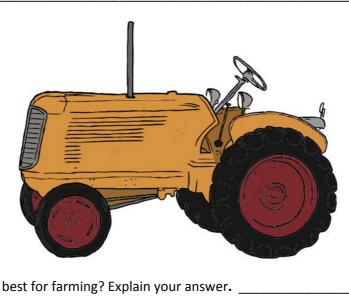
- Filter papers
- Filter funnel
- Beaker
- Measuring cylinder
- Water
- Specimens of different soils
- A large spoon
- 1. Set up the equipment for filtration.
- 2. Place two spoons of one soil in the filter paper.
- 3. Measure 20mL of water and carefully pour onto the soil. Do not disturb the soil.
- 4. Wait for 5 minutes then measure the volume of water that has permeated through the soil.
- 5. Enter your results in the table provided.
- 6. Wash the equipment and repeat for another two samples.
- 7. Compare your results with those of others.

Sample	Description	Vol. water collected (mL)	Comment
1			
2			
3			



Permeability - Student Activity

Why were you asked to compare your results with others?



Which soil would be best for farming? Explain your answer.

Which soil would form the best aquifer?

Which soil would be the best one to use to build and line a farm dam?

Extra for experts Explain why salt lakes form on clay pans (HINT there are at least three steps)