

Healthy Living – Heritage Food Gardens

UNIT 4: Soil Moisture – Worksheets

Soil Worksheet A – Experiment to Compare Soil Types

You will need:

- 3 types of soil (clay, loam, sandy) (150ml of each type)
- 3 glass beakers (500ml)
- 3 plastic funnels
- Cotton wool – to plug each funnel
- 3 x 50ml of water = 150 ml water

Instructions:

- Describe your three soil types as best you can (write results down)
- Plug each of the three funnels with cotton wool (make sure each wad of cotton wool is the same size)
- Measure 150ml of each different soil type into each of the three beakers and then pour each soil into one of the three funnels
- Tamp down the soil gently with the beaker
- Fill each of the three beakers with 50ml of water
- Working with three members, pour the water gently onto the soil while the 4th group member starts a timer (once the water has been poured into the funnel, move the beaker underneath the funnel to catch the dripping water)
- Measure a) the amount of time that it took for the first drop of water to drop into the beaker, b) how the amount of water that flowed through each soil compared with the other two (after 5 minutes).
- Once the measurements are completed try and roll the wet soil into a ball and then try and roll into a sausage – describe what happens.

Explain below the three considerations we made to ensure that the experiment was a FAIR TEST. Explain why this is necessary in science experiments.

(4 MARKS)

Results: Record results of your observations in the table below:

(5 MARKS)