HANDS-ON EXPERIMENTS

WATER TABLE

Water Table

GEOGRAPHY

#ExpeditionSevern

The ground beneath our feet can hold a certain amount of water. The level at which the water can be found is called the **water table**.

During periods of intense rain, the water table gets higher and closer to the surface. If the ground becomes too saturated floods can occur. Conversely, if there is very little rain for a long time, the water table drops and a drought can occur.

The water table is important in nature and effects a lot of wildlife, it has become even more important to humans however as impact from deforestation, farming and settlements can effect the water table and the fresh water available to us.

The Experiment

What you'll need: Large Clear Tank, Water, Gravel, Sand or Silt, Soil, Turf

1. Raise the tank at one end by around 30 degrees, this will make it easier to create a hilly environment within the tank;
2. To create a bedrock or porous rock simulation, layer the gravel across the bottom of the tank;
3. Next, pour in the soil/silt to create an intermediate layer;
4. Then create a layer of soil to be the layer just below the turf, finally adding that on top;
5. Put the tank back on a level surface and slowly add water. The sediment will start to move but will soon settle.
6. When you've added enough water you will be left with a water area toward the one side of the tank that represents a river and a water table throughout the tank.

Further Investigation

- Try timing the water as it is added to see how long it takes to trickle to the bottom;
- Does adding extra vegetation change this? Vegetation helps water seep into the ground and also holds it around its roots;
- Does compacting the soil have any effect? Cattle and sheep on farm land trample down the land making it harder for water to get through. It then runs down to the lowest point and collects in large pools.

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VIDEOS FOR THIS RESOURCE AT:

INTRODUCTION:

Clickable Link:
https://youtu.be/9F9AidkAK1Y

CONCLUSION:

Clickable Link:
https://youtu.be/ykVn7U50TaQ

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