



Save the Water

Subject: Science and Maths Context: Water conservation / Efficiency	Year Group: Year 1	Date:
Knowledge, Skills and Understanding: Fractions are used and measurements taken for volume and capacity. Scientific inquiry is demonstrated using simple questions and equipment.		
Learning Objectives (Choose from): <ul style="list-style-type: none"> Asking simple questions and recognising that they can be answered in different ways. Observing closely, using simple equipment. Performing simple tests. Using their observations and ideas to suggest answers to questions. Gathering and recording data to help in answering questions. 		
Lesson Overview: This activity investigates water conservation. Water is poured down the gutters and collected to see how much is left. Activity: <ul style="list-style-type: none"> Get the children to set up a run using all (or a set amount) the gutters and switch. Choose a container and fill it with water and pour it down the gutters and collect the water at the end of the run. Explore, observe and record the behaviour of the water as it flows down the gutters, observe and record the amount collected. Compare it to the amount poured originally, is it more, less or the same? Estimate how much water has been lost (A lot, some, not very much etc half, quarter etc). Observe and explore how the position of the gutters affects the water loss, splashing and leaking. Can the children spot “holes” in their system and fix them? Repeat the test to show how much less / more water they have saved by changing the system. Extension: <ul style="list-style-type: none"> Can they make the measurements more accurate by collecting the water in a measuring jug and working out how much has been lost? Once the gutter system is in place, keep it the same (fair test) and use a different container for pouring. Are the results similar? i.e. If half was lost from a cup is about half lost from a watering can? 	Resources: <ul style="list-style-type: none"> Moti-Lab reservoir Moti-Lab board Moti-Lab gutters a range of containers for pouring and collecting water e.g. <ul style="list-style-type: none"> plastic watering can paper cup plastic cup plastic measuring jug Key Vocabulary: bigger, smaller, taller, shorter, longer, further, plastic, glass, metal, paper, heavy, light, full, empty, half, quarter, longer, shorter, faster, slower, less, more, splash, flow, leak, spill.	



Conclusion / Plenary:

- Shallow gutter positions slow down the water.
- Water is lost due to splashing and leakage.
- The switch produces a lot of leakage.
- Lining the gutters up reduces leakage.
- Steeper gutters make the water splash more.

Cross Curricular Links (Choose from):

Maths

Number and place value

- Use the language of: equal to, more than, less than (fewer), most, least

Fractions

- Recognise, find and name a half as one of two equal parts of an object, shape or quantity
- Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity

Measurement

- Compare, describe and solve practical problems for;
 - Lengths and heights [for example, long/short, longer/shorter, tall/short, double/half].
 - Capacity and volume [for example, full/empty, more than, less than, half, half full, quarter].
 - Time [for example, quicker, slower, earlier, later].
- Measure and begin to record the following;
 - Capacity and volume.
 - Time (hours, minutes, seconds).
- Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening].

English

- Describe the experiment in chronological order.
- State observations in speech and writing.
- List the number and lengths of gutters.

Challenge Questions (Choose from):

How long does it take for a container full of water to run down the gutters?

How long do you think it will take for half a container to run down the same gutters?

Were you correct?, can you guess how long it would take for a quarter of a container of water to run down?



Complementary Activities

- Use a range of texts to find out why it is important to save water.

Useful Links

- <https://www.youtube.com/watch?v=UuHPtgX71L0> - Save The Water on Moti-Lab video
- <http://everylastdrop.co.uk/> - saving water website
- <https://www.youtube.com/watch?v=rI0YiZjTqpw> - saving water video
- <https://wateruseitwisely.com/kids/> - Water saving activities for children website

