

TOOL 1



Co-funded by
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Build a Rain Gauge



Title : Build a Rain Gauge

Developed by : British Red Cross

Topics : Floods

Website : <https://www.redcross.org.uk/get-involved/teaching-resources/rain-and-flooding-activity>

Description

This science experiment explores the flooding patterns, by studying the amount of rainfall in a specific area.

Duration

not specified

Resources needed

A clear plastic bottle (1-litre capacity), scissors or a craft knife, waterproof tape, a ruler, a permanent marker, sand or small pebbles, water, notebook and pen.

Age

5 to 11 years old

Expected outcomes

The students study and measure rainfall to explore changes in weather patterns, which helps them better understand heavy rainfall patterns and be better prepared and protected against flooding.

Climate change

This tool addresses a crucial topic of climate change, namely floods, emphasising the significance of environmental awareness and preparedness in safeguarding against these natural hazards.

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Risk prevention

The tool teaches children how to take measurements, make a rain gauge, create charts, compare measurements and draw conclusions, while also raising awareness to the importance of preparedness.

Management

The teacher should provide assistance to the students throughout the activity, particularly when it comes to cutting the plastic bottle. If the children are older and capable of safely using scissors or craft knives on their own, they can proceed with the experiment independently.

Others

Relevance to CRISEPAC Objectives

This tool, developed by the British Red Cross, is aligned with the objectives of CRISEPAC. It focuses on a climate change hazard, namely floods, educating children about the potential threats and raising awareness to the major natural risks of local territories.

Possible adaptations

Include an activity that highlights local natural risks and how quickly they can occur.

Weaknesses

It consists of an activity that may take a few hours, days or even weeks, considering the fact that the results are not immediate. It is advisable to start the activity taking into consideration the weather predictions, so that the students are able to see the results of their work more quickly. The materials needed to execute the activity must also be organised and distributed beforehand.

Strengths

Building a rain gauge allows students to learn how rain gauges work to measure precipitation and contribute to weather data collection.

Methodologies

- Begin by removing the label and cap from a plastic bottle. Wash off any sticky marks left behind from the label.
- Draw a line around the bottle about two thirds of the way up from the bottom. Then use scissors or a craft knife to cut off the top third of the bottle. The bottom of the bottle will be the rain collector, the top part will be the funnel.
- Use a ruler to measure and mark centimetre intervals on the collector, starting from the bottom until you reach the top. These marks will help you measure the amount of rainfall.
- Use some tape to cover the cut edge of the funnel as it might be sharp. Place the funnel into the collector, the neck of the bottle should be inside the bottle. Use some more tape to secure it in place.
- Find a suitable location in a garden, away from trees and buildings that could block rainfall and place the rain gauge.
- After it rains, check to see how much rain has collected into your bottle and take a note of the date and measurement in your notebook. Empty out the gauge, resetting it for the next time it rains.

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