Science
All ages

Making rainbows

- Light refraction

Overview

This activity encourages scientific play and exploration. There are four methods listed below for making a rainbow with simple equipment. Allow scientific thinking by investigating what is taking place and why each method works.

Resources

- Water
- Glass container
- Light coloured surface/paper/sheet
- CD/Mirror
- A sunny day or a torch
- Water hose/watering can

Activity

1. Stand with the sun behind you and spray a hose of water or pour a watering can to make a fountain. Look for a rainbow of light within the water.
2. Hold up a container/glass of water so the sunlight goes through it. Place a white sheet/paper onto the ground the other side and spot your rainbow.
3. Place a mirror/old CD partially submerged into a container of water. Make sure the mirror/CD is angled to face the sun and place your paper/sheet in between the water and the sunlight.
4. Hold a glass of water in front of a window where sunlight is passing through. Hold your paper underneath and watch the rainbow appear.

N.B. Don't ever look directly at the sun!

Suggested outcomes for learning and play

We understand you will tailor this activity to the learning needs of your pupils. Here are some of the learning outcomes and extension ideas that other practitioners have used this lesson idea to reach:

- To show scientific thinking
- To plan a scientific investigation

Subject	Topic	Ideas for further exploration
Science	Investigations	Investigate how to make the biggest/brightest rainbow. What happens if you change the equipment height/angle?
		Write up the results of your experiment
Art	Using chalk pastels	Draw/paint a picture of the rainbows created concentrating on the different colours
	Natural materials	Find natural materials that are every colour of the rainbow and create some natural art
Literacy and language	Descriptive writing	Use alliteration, similes etc. to describe the rainbows
	Instructions	Create instructions for others to make rainbows
Maths	Measurement	Accurately measure the distances, sizes or volume of water in the experiment.
	Data collection	Collect data relating to the sizes of the rainbows made etc and find the average, create charts etc

Learning through Landscapes

If you would like to develop your outdoor learning knowledge and skills, take a look at our range of training courses: **ltl.org.uk/outdoor-learning-training**