

Framing and describing the outdoors: short skill activity

This short activity is about learning how to observe and recognising that science can be used to explain what we see around us. The challenge is to go one step beyond what we immediately see and to focus on particular details, which can then lead to further questions and a deeper level of science understanding.

Take the class outside. Ask the students to make a picture frame with their hands in search of an image. Explain to them that they are going to look through this picture frame to find an image that they think matches a given word. Give the students about 2 minutes to do this for each of the following words:

- Unusual
- Spectacular
- Scientific

In between each word, get the students to pair up and ask them to show each other the image they have captured through their frame, describe what it is that they can see and explain why they chose this image to represent the given word.

Focus the whole class discussion around the word 'scientific'. At this point ask some individual students to talk about and explain their 'scientific' image.

Why did you decide this was scientific?

Tell us more.

Did anyone have a similar observation? Why did you decide this was scientific?

The aim of this activity is to encourage students to observe science in their everyday environment. In comparing their observations, they might also notice that one image can represent a number of science concepts.

It might be helpful to have a brief discussion with your students about this, after their experience:

What do you think this tells you about observing outside?***Mathematical plug-in***

Below is a list of possible mathematical words to locate:

Find something:

- Big
- Patterned
- Mathematical

Further discussions, for example around 'big', could be based around:

- a. How many measurements do you need to take to determine the size of an object? Did you look for something with a big length, area, volume, capacity?
- b. How can you compare the size of an object? How could you compare the size of a poster (flat) with the capacity of my bath?
- c. How big is big? Bigger than you? The tallest thing you can see? Something unmeasurable like the sky? Does the thing have to be visible? (How about the seconds passed since the school was founded?)
- d. What would you measure your object with and what units would you use?
- e. Find something 10 times bigger, 100 times bigger, 10 times smaller... Move on to a discussion about the metric system.
- f. Estimate the height of your object by using something to compare to (e.g. the height of a person being approximately 1.5 metres)