



Year 3
Science
w/c 15.06.20



Overview

This half of term our theme for Science is LIGHT. You will be learning about different sources of light, the dangers of looking directly at the sun, how shadows are created and how they can change and finally conducting your own experiment.

We hope you will enjoy it all.



Science – Lesson 2 – Reflected light

LEARNING INTENTION:

- To notice that light is reflected from surfaces.

SUCCESS CRITERIA:

- I can describe how objects reflect light.
- I can suggest why some objects reflect more light than others.



Science – Lesson 2 – Reflected light

- Today we are going to be looking at how certain materials reflect light.
- Watch this clip: <https://www.bbc.com/bitesize/articles/zqdx82>



Experiment 1

- Shine a torch on a mirror
- What happens to the beam of light?
- Why can we see the torch beam even though it isn't the torch that we are shining at the wall?



Experiment 1 (answers)

- Shine a torch on a mirror
- What happens to the beam of light? **The beam of light moves around the room**
- Why can we see the torch beam even though it isn't the torch that we are shining at the wall? ... **because the light is bouncing off the mirror. This is called reflection.**



Experiment 2 - set up

- Some materials are good at reflecting light (**reflective**) and others are not good (**non-reflective**).
- Today we will be testing some objects made of different materials to see how good or bad they are at reflecting light.
- You will need a **torch** and the following objects to test: ***CD, tin foil (flat), tin foil (scrunched up), coin, white card, black card, metal spoon***
- Before you start the experiment, make a **prediction** about which objects you think will or will not be reflective (complete this on your worksheet). You will be reviewing your prediction later.

Remember a 'prediction' is a sensible guess.



Experiment 2 - preparation

- For this experiment you will need a **torch** and you will need to make a **shininess tester**.
- Get a black piece of card and fold it in half so it is open to 90 degrees (a right angle).



Experiment 2 – carry out the test and record your results

- Hold the shininess tester over one of the objects on a table, put your torch close and shine it onto the object. Look to see how bright the reflection on the card is to help decide how shiny the object is. Choose from *very shiny*, *shiny*, *not very shiny* or *not shiny at all*.
- Test all the objects and fill in the table on your worksheet.
- Think about how you can make it a **fair test**?

Remember: For a fair test everything needs to be the same and you only change one thing each time e.g. *think about the position of card, the position of the torch and distance of torch from card and object.*



Experiment 2 – conclusion

- Look at your results and write a **conclusion** (what you found out) on your worksheet.
- Consider the following questions:
 - Which object reflected the most light? How do you know this?
 - Look at your predictions. Were you correct?
 - What are the common features of reflected materials?

Challenge

Can you write one reason why it might be important for materials to reflect light?



Plenary

- What real-life situations would require light to be reflected?
- Watch this short video:
<https://www.bbc.com/education/clips/ztcg9j6>