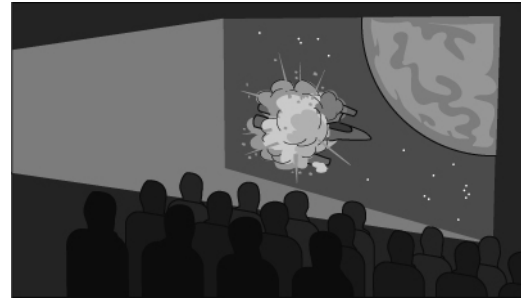


Name _____ Class _____ Date _____

Allie and Jamil are watching a film in the cinema. A spaceship is being chased, and explodes in a ball of fire. Allie puts her fingers in her ears because the sound is so loud.

Jamil drops his sweets. He needs to use the torch on his phone to find them because it is very dark under the seats.



1 Which of these things are light sources. Tick (✓) *two* boxes.

- torch cinema screen projector

2 If you were really in space, you could see an explosion but you could not hear it. Why is this?

- light travels faster than sound
 sound travels faster than light
 sound cannot travel through empty space

3 Complete these sentences using words from the box. You do not need to use all the words.

absorbs transmits reflects opaque shadow transparent

- a The cinema screen is made from a material that _____ light well.
b It is dark under the seats because they are _____ (light cannot go through them) so they form a _____.

4 Draw arrows on the diagram to show how Jamil can see his sweets using the torch on his phone.



5 Outside the cinema they see two cars crashing in the distance. They don't hear the sound straight away. Why does this happen?

I can...

- describe the ways in which light can be affected by different materials
- explain why sounds cannot be heard in space
- compare light waves and sound waves
- use ray diagrams to explain how we see things.