

LKS2 – Lesson Plan 6

How do light and shadows change?

Aim: To explore how light travels and how shadows are formed and change.	Key Words: Light, shadow, opaque, transparent, reflection	Preparation: - Flashlights or torches - Objects of different materials (opaque, transparent, translucent) - White paper or cardboard (for shadow experiments)
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Prior Learning: Basic understanding of day and night.

Warm-up:

Start with a discussion about light sources. Ask children where light comes from (e.g., the Sun, lamps, torches). Show how light helps us see things. Ask them if they have noticed their shadow before and where they think shadows come from.

Main Teach:

- How Light Travels:** Explain that light travels in straight lines. Demonstrate this by shining a torch across the room, showing that the light moves directly from the source to the surface.
- How Shadows Are Made:** Explain that shadows are formed when something blocks light. Show different objects in front of a torch to demonstrate how opaque objects create shadows, while transparent ones don't.

Activity:

Shadow Experiment: Children use flashlights to create shadows by shining light on different objects. They observe how shadows change when they move the light closer or farther away from the object. They also explore how different materials (opaque, transparent, translucent) affect the shadow.

Extension Challenge:

Shadow Puppet Play: Children create shadow puppets using cardboard cutouts. They use their puppets to create a short shadow play, experimenting with different shadow sizes and shapes.

Plenary:

Review what children learned about shadows and how they change. Ask them to explain how shadows are made and what happens when they move the light source. Discuss how shadows change during the day depending on the position of the Sun.

ART	Children create silhouette art using black paper and cut out shapes of objects or animals. They place their cutouts on a white background.
D.T.	Build a sundial as a class project. Place it outside and observe how the shadow changes over the course of the day.