

**Year 3  
Term 5  
Science - Light**

**Final Outcome: To investigate what happens to a shadow when you change the distance between the object and the light source.**

**Component 6**

**What we will know after this sequence:**

- How a shadow is formed.
- How to plan and set up an investigation about the way shadows change size.
- How to observe patterns in the way shadows change size and explain why these patterns occur.

**Vocabulary:**

Shadow, light, source, observe, pattern, opaque, size, distance, change.

**How will this feed into my next learning:**

Children will then investigate what happens to a shadow when you change the distance between the object and the light source.



**Component 4**

**What we will know after this sequence:**

- The benefits and dangers of the sun.
- What UV light is and its dangers.
- The function of different parts of the eye e.g. the pupil and retina
- Ways to protect our eyes from the sun e.g. using polarised sunglasses or sunhats.

**Vocabulary:**

Light, sun, beneficial, dangerous, glare, bright, damage, UV light, UV rating, visible, spectrum, pupil, retina, protect, direct, sunglasses, hat, brim.

**How will this feed into my next learning:**

The knowledge of sunlight and UV rays will be applied to understanding how shadows are formed.

**SEN:**

Matching activities about the parts of the eye and their function for reluctant writers.

**Component 5**

**What we will know after this sequence:**

- How light travels.
- How to sort different materials according to whether they are opaque, transparent or translucent.
- That shadows are formed when the light from a light source is

blocked by a solid object.

**Vocabulary:**

Light, energy, beam, ray, travel, straight, opaque, translucent, transparent, block, shadow.

**How will this feed into my next learning:**

Pupils will see whether shadows change based on the positions of the object and light source.

**SEN:**

Pre-teach vocabulary such as opaque, transparent and translucent and ensure children have been exposed to visuals of this.

**Component 3**

**What we will know after this sequence:**

- How mirrors work in different tasks.
- Why mirrors are good reflectors.
- How mirrors can be used to reflect light onto different objects.



**Vocabulary:**

Reflect, mirror, light, smooth, shiny, rays, rough, scatter, reverse, beam.

**How will this feed into my next learning:**

Children will then look at sunlight and how light rays can sometimes be dangerous.

**SEN:**

Recording verbal responses to experiment/iPad photos to show engagement in task and findings.

**Component 2**

**What we will know after this sequence:**

- That light is reflected off of surfaces.
- That certain materials are more reflective than others.
- How to investigate which material would be best to create a reflective bookbag.

**Vocabulary:**

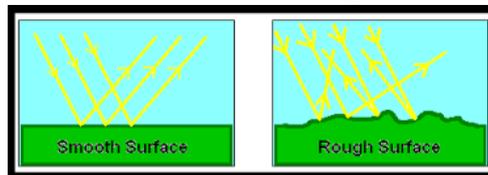
light, source, dark, reflect, see, illuminate, visible.

**How will this feed into my next learning:**

Pupils will use their knowledge of light reflection to investigate why mirrors make good reflectors.

**SEN:**

Differentiated outcome e.g. design something reflective relating to their interests rather than a bookbag. Be aware of sensory overload due to different materials being used.



**Component 1**

**We should know:**

There are a variety of light sources.  
Blocking light creates shadows.  
The opposite of light is dark.

**What we will know after this sequence:**

- That we need light in order to see things.
- That darkness is the absence of light and how this can be investigated.
- That light is needed to see things.

**Vocabulary:**

light, source, dark, reflect, see, illuminate, visible.

**How will this feed into my next learning:**

Children will apply this understanding of light to investigate how light is reflected and whether this varies depending on the material of the surface.

**SEN:**

Visual word mat with new vocabulary.

