



## Science – Year 3 Light

### Vocabulary

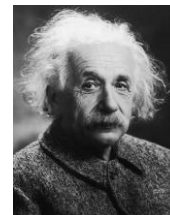
| Tier 1 | Tier 2       | Tier 3      |
|--------|--------------|-------------|
| Light  | Light Source | Transparent |
| Dark   | Reflect      | Translucent |
| Eye    | Refract      | Opaque      |
| Mirror | Visible      | Natural     |
| Shadow | Invisible    | Artificial  |
| Ray    | Emit         | UV Light    |

### Useful Resources

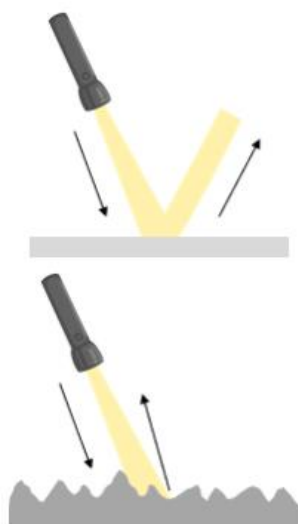
- 'Feely bags'
- Torches to create and investigate shadows
- Prisms and shadow puppets
- Materials to investigate reflectivity

### Key Scientists:

**Albert Einstein (1879-1955)** – was a German scientist who discovered that light always travels at a constant speed, regardless of how fast you're moving when you measure it.



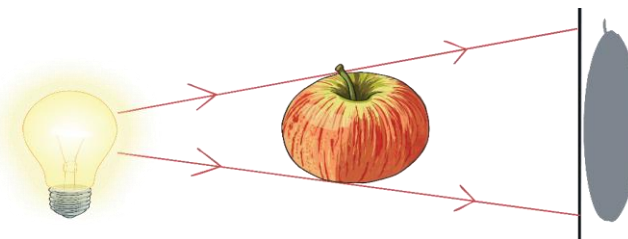
### Reflecting Light



When the light rays hit the smooth mirror, they all bounce off at the same angle, creating a clear reflection.

When the light rays hit a rough surface, they scatter in all different directions, so it doesn't reflect well.

### Shadows are formed when light is blocked



### Key Questions/Facts

#### Why do we need light?

- We can see objects because our eyes can sense light.
- A light source creates light, such as a lamp or the sun.

#### What is dark?

- Dark is the absence of light.
- If there is no light from a light source, it will be dark.

#### What is a shadow?

- Shadows are created when an opaque object blocks light.
- The light cannot go through or around the object, so a darker patch of less light is created behind the object.

#### What is a reflection?

- Reflection is when light bounces off an object.

#### How does light travel?

- Light can only travel in a straight line.

#### How does light travel?

- The sun emits (gives out) rays of light.
- A type of light emitted from the sun is called UV light, which is invisible to humans.
- UV light is dangerous to our eyes and skin.
- You should never look directly at the sun.
- You should wear sunglasses and sunscreen to protect your eyes and skin.