Nova’s Guide to the Marvellous World of Light

Step into the Light: Explore how shadows dance and colours shine!

- **Light travels in straight lines; when an opaque object blocks this path, it creates a shadow where the light cannot reach.**
- **We see objects because light rays reflect off them and travel into our eyes, allowing our brains to interpret the shapes and colours.**
- **A light source, such as the Sun or a torch, emits its own light, whereas non-luminous objects only become visible when illuminated by another source.**
- **Transparent materials allow light to pass through them completely, translucent materials let some light through, and opaque materials block light entirely.**
- **Refraction occurs when light bends as it passes from one medium to another, such as from air into water, which can make objects appear distorted.**
- **White light is actually a mixture of all the colours of the visible spectrum, which can be separated using a glass prism to create a rainbow effect.**

> *Did you know? Did you know? Light travels in perfectly straight lines at an incredible speed of approximately 300,000 kilometres per second! Because it travels so fast, it seems like a light switch turns on instantly, but it is actually racing across the room to reach your eyes.*

Key vocabulary: Reflection · Refraction · Light source · Opaque · Transparent · Translucent · Spectrum