**Topic Overview: Light**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Outcome | Achieved | ☺ |
| Emerging | Describe what happens when light hits surfaces |  |  |
|  |  |  |
| Demonstrate light travels in straight lines |  |  |
|  |  |  |  |
| Developing | Use the correct names for angles rays reachign and leaving a mirror. |  |  |
|  |  |  |
| Construct ray diagrams to show how light reflects off mirrors |  |  |
|  |  |  |  |
| Securing | Describe how lenses may be used to correct vision. |  |  |
|  |  |  |
| Use ray diagrams to describe how light passes through lenses and transparent materials |  |  |
|  |  |  |  |
| Mastering | Use a ray diagram to predict how an image will change in different situations. |  |  |
|  |  |  |
| Predict whether light will reflect, refract or scatter when it hits the surface of a given material |  |  |
|  |  |  |
| Use ray diagrams to explain how a device with multiple mirrors works. |  |  |

**Keywords**

|  |
| --- |
| **Incident ray:** The incoming ray. |
| **Reflected ray:** The outgoing ray. |
| **Normal line:** From which angles are measured, at right angles to the surface. |
| **Angle of reflection:** Between the normal and reflected ray. |
| **Angle of incidence:** Between the normal and incident ray. |
| **Refraction:** Change in the direction of light going from one material into another. |
| **Absorption:** When energy is transferred from light to a material. |
| **Scattering:** When light bounces off an object in all directions. |
| **Transparent:** A material that allows all light to pass through it. |
| **Translucent:** A material that allows some light to pass through it. |
| **Opaque:** A material that allows no light to pass through it. |
| **Convex lens:** A lens that is thicker in the middle which bends light rays towards each other. |
| **Concave lens**: A lens that is thinner in the middle which spreads out light rays. |
| **Retina:** Layer at the back of the eye with light detecting cells and where image is formed. |