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| **Question for Learning;****What is a light source?*** Examples of light sources and luminous objects: light bulbs, the sun, and glow sticks.
* Non-luminous objects: shiny diamonds, mirrors and road signs.
* The moon is not a light source.
* Darkness is the absence of light and we need some light to be able to see.
* It is important to protect our eyes from harm, including not looking directly at the sun and other bright light sources.
 | **Research** |
| **Question for Learning;****What is reflection?*** Light bounces off a surface when it reflects.
* Rejective surfaces or materials: mirrors, glass or metallic objects.
* The smoothness or how still the surface is will affect the quality of the **reflection**.
 | **Identifying, grouping and classifying**  |
| **Question for Learning;****Where do shadows come from?*** Shadows form when light is blocked by a material (usually opaque).
* Opaque materials form darker shadows or translucent and transparent materials form lighter, fuzzier shadows.
* The colour, position and material of an object can affect the way a shadow appears.
 | **Pattern seeking** |
| **Question for Learning;****Do shadows change during the day?*** The position of the light source (the sun) causes shadows to change throughout the day.
* Shadows are longer when the sun is low in the sky, such as sunrise or sunset.
* Shadows are much shorter when the sun is high in the sky.
 | **Observation over time** |
| **Question for Learning;****Can the distance of the light source affect the size of its shadow?*** The distance or the angle of the light can change the size of a shadow.
* The closer a light source is, the larger the size of the shadow.
 | **Comparative / Fair Testing**  |
| **Question for Learning;****How do different people work with light and shadows?*** Opaque materials are most appropriate to make a shadow puppet as they block out light.
* To get a shadow, the puppet needs to go between the screen and the light source.
 | **Researching / Problem Solving** |

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| **Key Words** |
| Light source | Where light comes from |
| Opaque | A property of a material where no light can pass through |
| Transparent  | A property of a material where most light can pass through |
| Translucent | A property of a material where some light can pass through |
| Reflective (shiny) | A surface that light bounces off more.  |
| shadow | A dark area caused by something blocking the light.  |