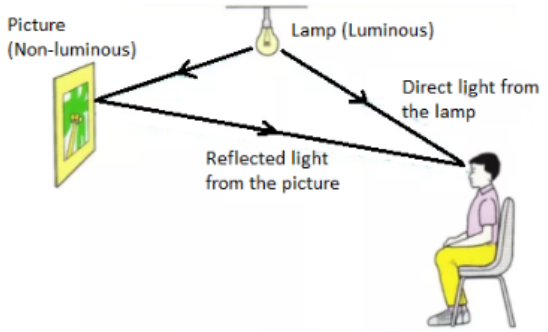
Year 6: Science Light Knowledge Mat

Subject Specific Vocabulary

light source	Any object whether natural or artificial which emits light.
light ray	A path of photons visible as a beam of light.
ray diagram	A diagram which shows how light travels, including what happens when it reaches a surface.
concave	A concave lens is thinner in the middle than it is at the edges.
convex	A convex lens is curved outwards like the surface of a sphere, so its middle is thicker than its edges.
anomaly	A result that is not normal or is unexpected.
analyse	To examine something methodically and in detail, in order to explain it.
refute	Demonstrate a hypothesis to be false.
confirm	Use evidence to demonstrate the truth of a hypothesis.
hypothesis	An idea for something that has not yet been proven.

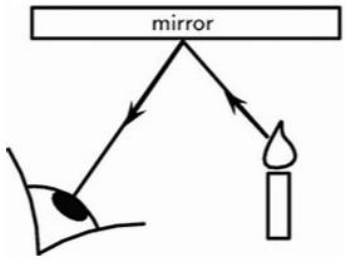
Luminous and non-luminous objects

Objects that emit light called luminous. Non-luminous objects doesn't emit their own light and are visible only when light from luminous source reflects from them.



Ray Diagrams

Light travels from objects from objects into our eyes so we see them. The diagram below shows the reflection of candlelight in a mirror.



Important knowledge

- ❑ I know how to classify luminous and non-luminous objects.
- ❑ I know that we see objects because light travels in straight lines from light sources to our eyes or from light sources to objects and then to our eyes.
- ❑ I know why shadows have the same shape as the objects that cast them.
- ❑ I know that concave lenses diverge the light that hits them and convex converge.
- ❑ I can raise a scientific question that can be tested.
- ❑ I can decide on the most appropriate format to present my data and my results.
- ❑ I can explain how the evidence I have collected supports or refutes my idea.
- ❑ I can make a prediction and explain my reasons using scientific knowledge.
- ❑ I can use more than one piece of evidence when I form a conclusion.