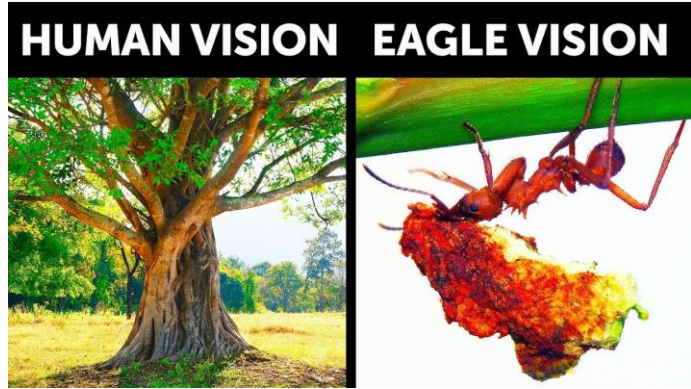
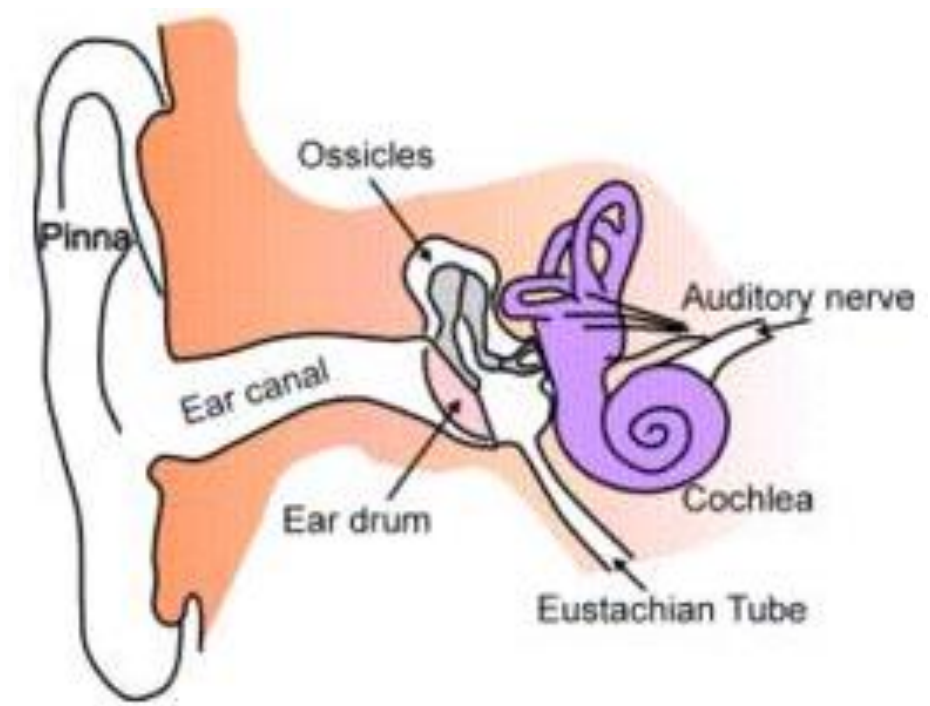
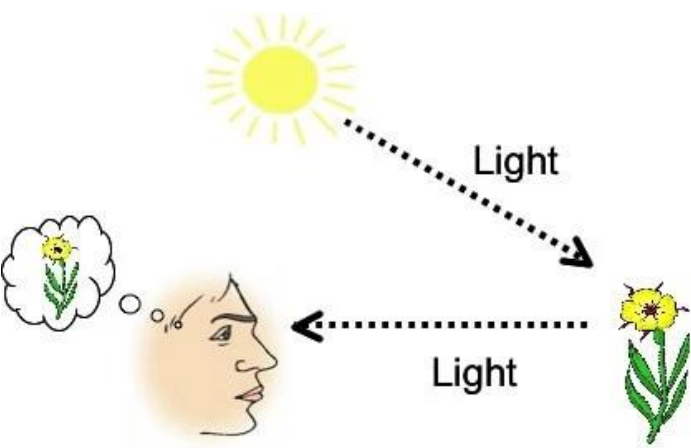
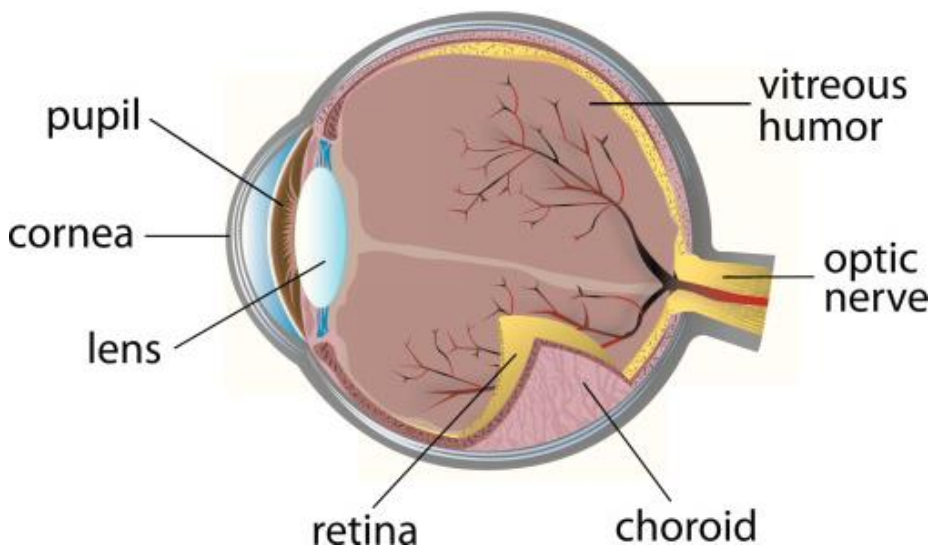


By the end of the unit, pupils will be able to answer...

- How does light move and why does this affect how we see objects?
- Why do shadows have the same shape as the object that creates them?
- How does the ear work?

Vocabulary	Definition
auditory nerve	the nerve which carries sound information to the brain
cochlea	a part of the ear that transfers sound vibrations
complete darkness	a full absence of light in which nothing at all can be seen
eardrum	a part of the ear that picks up sound vibrations
light rays	how light travels from a light source
optic nerve	the nerve which carries image information to the brain
pupil	a small, dark opening in the centre of the eye which allows light to pass through
retina	the back of the inside of the eye ball – it senses light and colour to form images
surface	the outside or top layer of something
straight line	a line with no curve and no change of direction



Investigate!	
- Explore different ways to demonstrate that light travels in straight lines (eg shining a torch down a bent or straight hosepipe, shining a torch through different shapes holes in card) - Explore the use of the behaviour of light, reflection and shadows, such as in periscope design, rear view mirrors and shadow puppets	- Investigate how shadows change based on a range of variables, including distance and surface type - Study diagrams of the eye and research how humans and animals interpret light in different ways - Study diagrams of the ear and research how it works - Design rooms that block light and sound to improve sleep