

Question	Answer
Light	
An object that does not allow light through is called...	Opaque
An object that allows light through but scatters it is called...	Translucent
An object that allows light through without scattering is called...	Transparent
Objects that emit their own light are called...	Luminous
When do we see non-luminous objects?	When light reflects off the object and enters our eyes
Which wave travels faster, light or sound?	Light
Reflection	
What is reflection?	When light bounces off a surface
A ray of light that hits a surface is called...	The incident ray
A ray of light that reflects from a surface is called...	The reflected ray
The angle of incidence is measured between...	The incident ray and the normal line
The angle of reflection is measured between...	The reflected ray and the normal line
State the law of reflection	The angle of incidence is equal to the angle of reflection
Reflection from a smooth surface is called...	Specular reflection
Reflection from a rough surface is called...	Diffuse reflection
The type of reflection that produces an image is...	Specular reflection
Refraction	
What is refraction?	When light changes direction as it enters a different material
When light enters a more dense material, which way will it turn?	Towards the normal
When light enters a less dense material, which way will it turn?	Away from the normal
The Eye	
Light enters your eye through the...	Pupil
The size of your pupil is controlled by the...	Iris
The cells that detect light in your eye are called...	Rods and Cones
Rod cells are good for...	Seeing in the dark
Cone cells are good for...	Colour vision
Colour	
White light is made from	All the colours of light
When white light is split into its colours we call this a...	Spectrum
How does a red filter work?	It absorbs all colours of light except red which can pass through
How does a green filter work?	It absorbs all colours of light except green which can pass through
Why is a blue object blue?	It absorbs all colours of light except blue which it reflects
Why is a red object red?	It absorbs all colours of light except red which it reflects

Question	Answer
Sound and speed	
What causes sound?	Vibrations
What type of wave is sound?	Longitudinal
How does sound travel in air?	The air particles move backwards and forwards as a wave
What is the material that sound travels through called?	A Medium
Does sound travel faster in solids, liquids or gases?	Solids
Why does sound travel faster in solids?	The Particles are closer together
How fast does sound travel in air?	330m/s
Why can't sound travel in a vacuum like space?	There are no particles
Why do you see lightning before you hear thunder?	Light travels faster than sound
Loudness and Amplitude	
What is amplitude?	The maximum vibration of a wave from the middle position
What is wavelength?	The distance between 2 identical points on a wave (e.g. between 2 crests)
A higher amplitude means a sound wave will be...	Louder
What is the top of a wave called	Crest
What is the bottom of a sound wave called	Trough
What is it called when sound reflects a hard surface?	An echo
What does a sound wave transfer?	Energy
What happens when sound is absorbed?	The amplitude decreases
What piece of equipment allows us to see sound waves?	An Oscilloscope
Frequency	
The pitch of a sound (high or low) is related to what?	Frequency
What is frequency?	The number of sound waves or vibrations per second
What is the unit of Frequency?	Hertz (Hz)
What is the hearing sound range for humans?	20-20000 Hz
What are sounds above 20,000 Hz called?	Ultrasound
What happens to the wavelength of a wave if frequency increases?	It decreases
The Ear	
What 3 parts make up the outer ear?	Pinna, auditory canal, eardrum
What are the tiny bones of the middle ear called?	Ossicles
What structures make up the inner ear?	Cochlea, semi-circular canal
What carries signals from your ear to the brain?	Auditory nerve
What is the unit of volume?	Decibels (dB)
What can happen if you listen to loud music for a long time?	Permanent hearing damage