

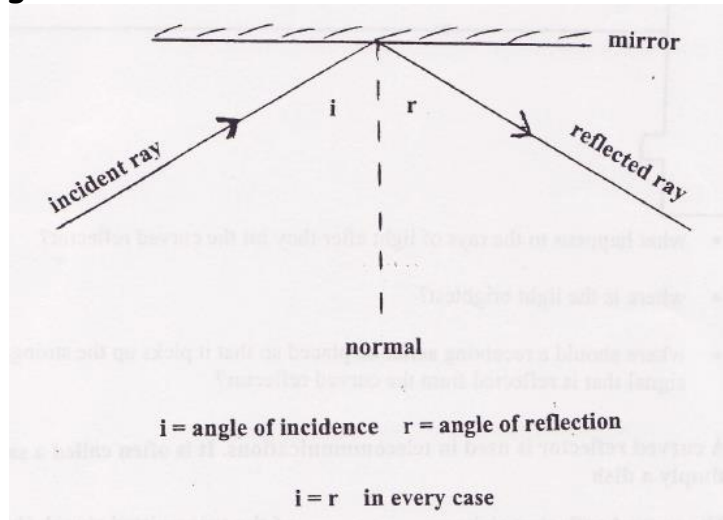
S1 Pyrotechnics Revision

Light

Light is a form of _____ and travels as a wave. Light always travels in _____ lines. This is the reason that a _____ is formed when an object prevents light from passing through it.

Reflection from a Flat Mirror

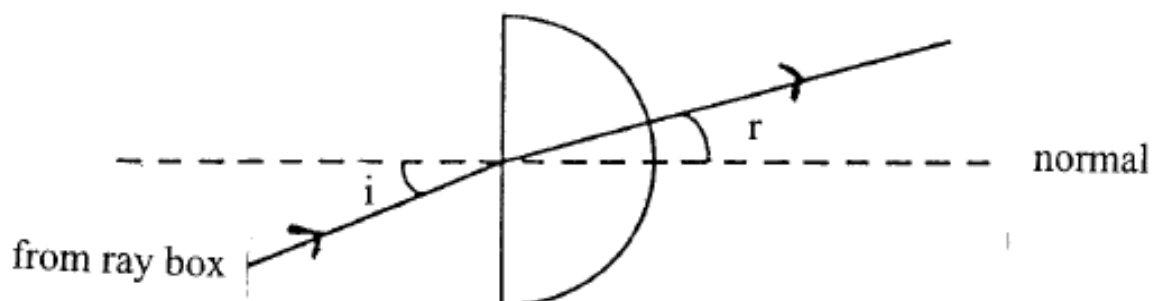
Look at the diagram below for a ray of light reflecting from a mirror and then complete the passage



The normal is a line drawn at r_____a_____ to the flat mirror. The angle of incidence is the angle measured between the i_____ ray and the n_____. The angle of reflection is the angle measured between the r_____ ray and the n_____. For a flat mirror the angle of i_____ equals the angle of r_____.

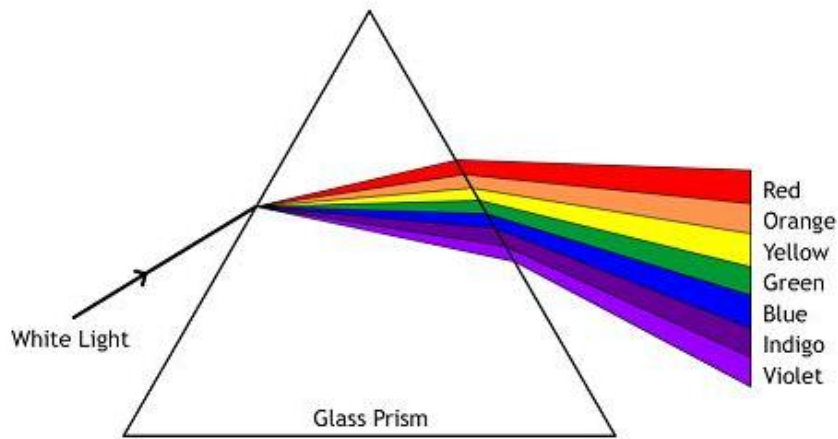
Refraction of light

Look at the path a ray of light takes when it passes from air into glass.



When light passes at an angle from air into glass its direction changes. The angle of r_____ (r) is less than the angle of i_____ (i). The light ray moves towards the normal.

Producing Colours from White Light



When white light enters a triangular glass block, the white light splits up into seven colours called the colours of the _____. In order from X to Y the colours are _____.

Lenses

A lens is a curved piece of g_____. There are two types of lenses: c_____ and c_____. A convex lens brings rays of light to a point called the focus. A _____ lens spreads the rays out. Name the lenses below and show what happens to parallel rays of light as they pass through each lens (use a ruler).



The Eye

Label the cornea, iris, pupil, lens, retina and optic nerve. Complete the table below.



Part	Job
Cornea	Clear layer at front of eye which helps focus light
Iris	Coloured ring which controls size of pupil
Pupil	Allows light to enter the eye
Lens	
Retina	
Optic nerve	

Periodic Table

Periodic Table of the Elements

Legend:

- alkali metals
- alkaline earth metals
- transitional metals
- other metals
- nonmetals
- noble gases

Callout for Silicon (Si):

- atomic number: 14
- atomic weight: 28.086
- symbol: Si
- name: Silicon
- physical state: solid
- color: black
- state: solid

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The periodic table lists the known elements. The elements are arranged into groups with similar chemical properties. Group 1 elements are alkali metals, group 7 are halogens and group 0 are noble gases.

Signs of a Chemical Reaction

When a chemical reaction takes place there might be a _____ change, a _____ change, or a _____ could be produced.

When a chemical change occurs a new _____ is always formed.

Speed of a Chemical Reaction

The speed of a chemical reaction can be increased by

- decreasing particle size
- increasing concentration
- increasing temperature

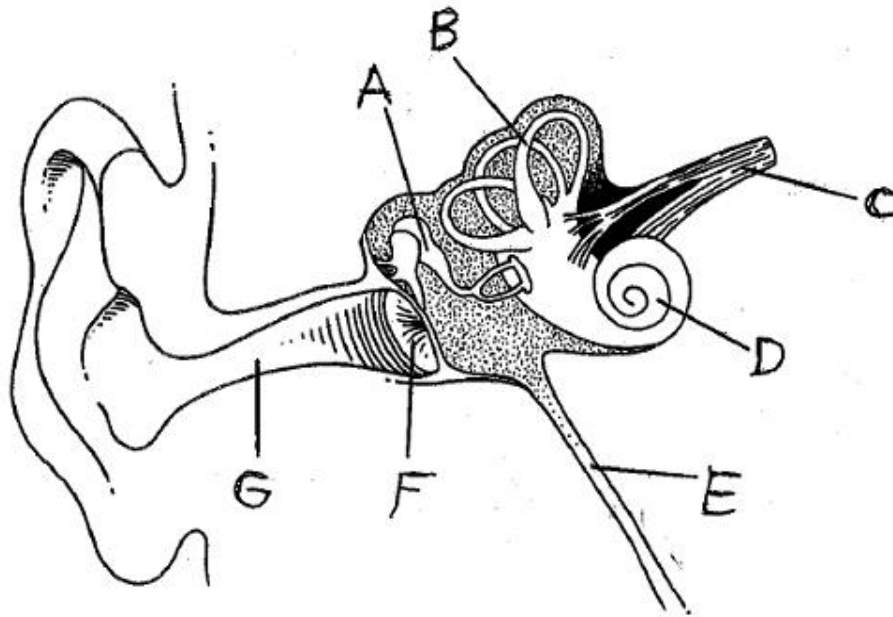
Word Equations

Complete the following word equations for various chemical reactions

1. Potassium + sulphuric acid →
2. Magnesium + hydrochloric acid →
3. Sodium + nitric acid →
4. Calcium + sulphuric acid →
5. Aluminium + hydrochloric acid →
6. Tin + hydrochloric acid →
7. Lead + nitric acid →

The Ear

Label the ear canal, ear drum, middle ear bones, cochlea, semi-circular canals and auditory nerve. Complete the table below.



Structure	Function
Ear drum	Vibrates when sound waves hit it.
Middle ear bones	Amplify vibrations.
Cochlea	
Auditory nerve	
Semicircular canals	Control balance

Sound

Sound is a form of _____ and travels as a wave. Sound is produced by _____ .

Complete the boxes below to show the shape of sounds

High pitch

Low Pitch

Loud sound

Quiet sound
