



Does light travel in straight lines?  
How are objects seen?  
How do we see things?  
Why do shadows have the same shape as the objects that cast them?

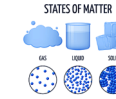
What is the association with brightness of a bulb/ volume of a buzzer with the number and voltage of cells used in a circuit?

Can I compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches?

Can I use recognised symbols when representing a simple circuit in a diagram?

Year 6

- Materials
- Earth and Space
- Forces
- Light
- Sound
- Electricity



Can I compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets?

How do materials dissolve to form a solution and how do we recover the substance?

How might mixtures be separated through filtering, sieving and evaporating?

What are the uses of everyday materials including metals, wood and plastic?

How are dissolving, mixing and changes of state reversible changes?

Why are some changes irreversible?

How does the Earth and other planets move in relation to the sun?

How does the moon move in relation to the Earth?

How are the Sun, Earth and Moon approximately spherical bodies?

How do we get day and night?

Why do unsupported objects fall towards the Earth?

What is the effect of air resistance, water resistance and friction that act between moving surfaces?

How do some mechanisms allow a smaller force to have a greater effect?

Year 5



Can I group materials together, according to whether they are solids, liquids or gases?

Which materials change state when they are heated and cooled and at what temperature?

What part do evaporation and condensation play in the water cycle?

How are sounds made?

How do vibrations travel to the ear?

What is the pattern between the pitch of a sound and the features of the object that produces it?

What is the pattern between the volume of a sound and the strength of vibrations that produce it?

What happens to sound as the distance from the sound source increases?

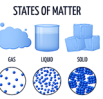
What is needed in a circuit to make a lamp light?

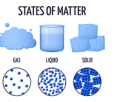
What affect does a switch have on whether a lamp will light in a circuit?

What are some common conductors and insulators?

Year 4

Year 3

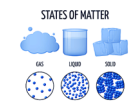




Can I identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses?  
 How can the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching?

Year 2

Year 1



Can I distinguish between an object and the material from which it is made?  
 Can I identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock?  
 Can I describe the simple physical properties of a variety of everyday materials?  
 Can I compare and group together a variety of everyday materials on the basis of their simple physical properties?

**Applied to all principals of the Physics Science curriculum:**  
**Reception- UW (TW)** Can I explore the natural world around me?  
 Can I describe what I see, hear and feel whilst I am outside?  
 Can I explore the natural world around me, making observations?  
**ELG- UW (TW)** Can I understand some important processes and changes in the natural world around me including changing states of matter?

Reception

Nursery

**UW 3-4 yr olds-** Can I use all of my senses in hands-on exploration of natural materials?  
 Can I explore collections of materials with similar and/or different properties?  
 Can I explore and talk about different forces that I can feel? Can I talk about the differences between materials and changes that I notice?