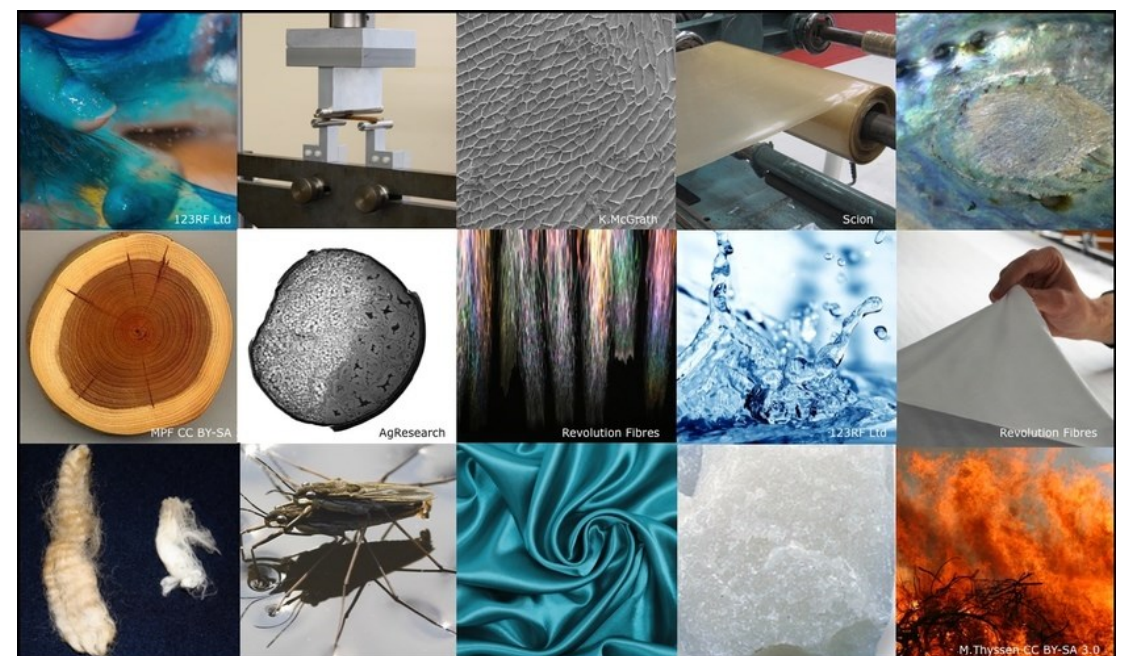


Year 5



Properties and Changes of Materials

Key Vocabulary			

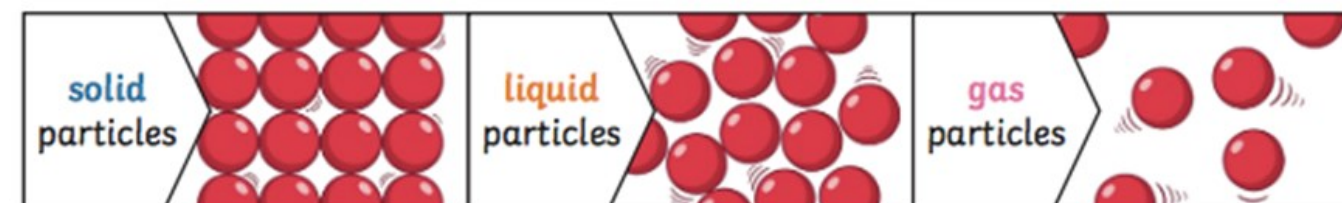


Pre existing knowledge

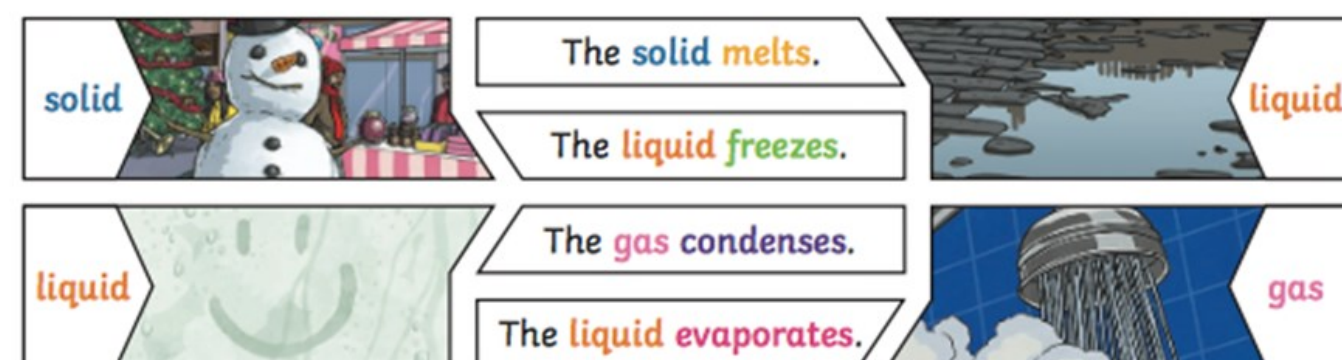
- A variety of everyday materials including wood, plastic, glass, metal, water and rock.
- The physical properties of a variety of everyday materials (including those that are transparent) and to compare and group materials on the basis of these properties.
- How magnets and electrical circuits work.
- How shapes of solid objects can be changed by squashing, bending, twisting and stretching.
- Materials that are solids, liquids and gases and their particle structure.
- Some materials change state when they are heated or cooled and the temperature at which this happens.
- Some rocks are permeable.

Key Vocabulary	
Materials	The substance something is made out of.
Solids	One of the three states of matter. The particles are packed together tightly.
Liquids	This state of matter can flow and takes shape of the container it is placed in. Particles are still close, but slightly looser than a solid.
Gases	The third state of matter. The particles are further away than the other states and are free to move around.
Melting	The process of heating a solid until it changes into a liquid.
Freezing	The process of cooling a liquid until it becomes a solid.
Evaporating	When a liquid turns into a gas or vapour.
Condensing	When a gas is cooled and turns into a liquid.
Conductor	A material that allows heat or electricity to flow through it easily.
Insulator	A material that does not let heat or electricity travel through it.
Transparent	See through.
Opaque	Solid colour – unable to see through.
Translucent	Can see shapes through, not completely clear or solid in colour.

States of matter:



Changes of State



Properties /Characteristics of materials



Conductors and insulators

- Can be in relation to thermal (heat) or electrical.
- Conductors allow heat or electricity to pass through them easily.
- Insulators do not let heat or electricity travel through them easily.
- These properties are important when designing objects and choosing which material to use.

Dissolving, and solutions

- When the particles of a solid mix with the particles of a liquid, this is called dissolving. The result is a solution.
- Materials that dissolve are soluble.
- Materials that do not dissolve are insoluble.

