

# Knowledge Mat: Properties of Materials

## How does this link to GROW?

O: To gain outstanding knowledge and skills, so we can know more and remember more about properties of materials.



## Key Knowledge:

### Separating Materials

#### Sieving

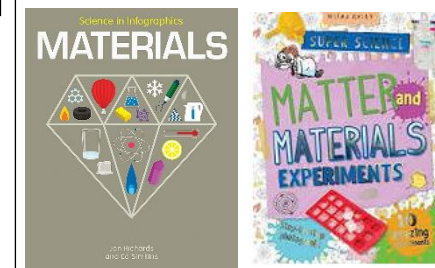
#### Filtering

#### Magnetism

**Magnetic metals:**

- iron
- nickel
- steel

## Books you might like:



## Subject Specific Vocabulary

thermal	using or producing heat
conductor	a substance or material that lets energy pass through easily
insulator	a substance or material that does not easily allow energy to pass through
elasticity	the ability of a material to return to its original shape/size after being stretched
comparative test	a test which compares one event with another and identifies different outcomes
extraction	the process of removing a substance from a mixture

Properties of Materials	
conducts energy	
insulates energy	
transparent	
waterproof	
durable (strong)	
magnetic	

Materials can be compared and grouped together based on a number of different properties, e.g.

- **Hardness** - how hard or soft a material is
- **Solubility** - whether a material can dissolve
- **Transparency** - whether it allows light to pass through
- **Conductivity** (electrical or thermal)
- **Response to magnets** - whether it is magnetic or not

## What I've learnt previously:

In Year 4, I learned to group materials together based on whether they are solids, liquids or gases. In KS1, I identified and compared the suitability of different materials for particular uses based on their properties.

## This will help me to:

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.