









Lesson Sequence

-  1. Explore properties of materials
-  2. Explore thermal conductors and thermal insulators
-  3. Explore hardness of materials
-  4. Discover materials that are soluble in water
-  5. Investigate the solubility of materials
-  6. Explore how mixtures can be separated by filtering, sieving, evaporating or magnets

Properties of Materials

conducts energy	
insulates energy	
transparent	
waterproof	
durable (strong)	
magnetic	

Everyday Materials

Metal saucepans **conduct** heat to warm food.



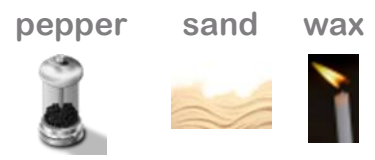
Wooden spoons and plastic handles **insulate** heat so hands do not get burned.

Soluble Materials

Some solids **dissolve** in water (**SOLUBLE**).



Some solids do not **dissolve** in water (**INSOLUBLE**).



Separating Materials

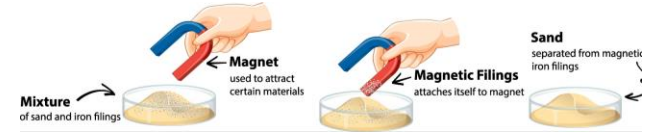
Sieving



Filtering



Magnetism















Magnetic metals:

- iron
- nickel
- steel



Rocket Words

	conductive	a material that allows heat and/or electricity to pass through it
	magnetic	material that is attracted to a magnet
	thermal	using or producing heat
	conduction	heat moving from one object to another through contact
	hardness	resistance to scratching and pressure
	force	when an object is acted upon by a pull or push motion in a specific direction
	dissolve	to mix with a liquid and become part of the liquid
	solute	a substance that can be dissolved in liquid
	solvent	a substance that can dissolve in a solute, water is a solvent
	substance	any material, such as sugar
	filtering	the separation of a mixture using a tool with small holes to separate particles
	evaporation	the process where a liquid changes into a gas