



## 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**).

coffee



sugar



salt



jelly



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

pepper



sand



wax

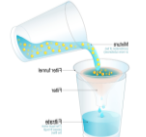


## Separating Materials

### Sieving



### Filtering



### Magnetism





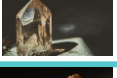





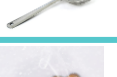
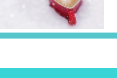


Magnetic metals:

- iron
- nickel
- steel



## Rocket Words

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