Key vocabulary	
thermal	Does not allow heat to pass
insulator	through it easily.
thermal	Allows heat to pass through it
conductor	easily.
electrical	Does not allow electricity to pass
insulator	through it.
electrical	Allows electricity to pass through
conductor	it.
dissolve	A solid that completely mixes in
	with a liquid and cannot be seen.
solution	A mixture of a liquid with a
	dissolved solid or gas.
soluble	Solids and gases that dissolve in
	liquids.
insoluble	Solids that do not dissolve in a
	liquid.
sieve	Separates solids of different sizes.
filter	Separates an insoluble solid that is
	mixed in a liquid.
evaporation	Separates a soluble solid and a
	liquid.
reversible	Changes that can be switched
change	back and are not permanent. E.g.
	dissolving, melting, freezing
non-	Changes that cannot be reversed
reversible	back to their original state. E.g.
change	burning, rusting

Materials can be grouped together based on their properties. For example:

- hardness
- solubility
- transparency
- thermal conductivity
- electrical conductivity
- response to magnets

Properties and changes
of materials – Year 5



Significant scientistsVerSpencer Silver is an1)American scientist who1)together with Arthur Fry wasthe inventor of Post-it notesin 1974. At the time, he wasworking to develop newclasses of adhesives.

Joe Keddie

Joe Keddie is a professor of Soft Matter Physics at the University of Surrey. He is interested in the fundamental processes of soft matter, especially polymer thin films and nanoparticles.





Non-reversible changes - these		
result in the formation of new materials		
Burning		
Mixing	States and	
vinegar and		
bicarbonate		
of soda		
Rusting		