

Name \_\_\_\_\_

Date \_\_\_\_\_

Science Vocabulary

Student # \_\_\_\_\_



### Matter on the Move

solids	<ul style="list-style-type: none"><li>• particles are closely packed.</li><li>• particles vibrate slowly.</li><li>• have a definite volume.</li><li>• have a definite shape.</li></ul>
liquids	<ul style="list-style-type: none"><li>• particles slip and slide past each other.</li><li>• have a definite volume.</li><li>• do not have a definite shape.</li></ul>
gases	<ul style="list-style-type: none"><li>• particles get excited, move quickly</li><li>• particles are further apart.</li><li>• do not have a definite volume.</li><li>• do not have a definite shape.</li></ul>
energy	The ability to do work; comes in different forms, such as electrical, thermal, mechanical, and chemical.
kinetic energy	The energy of motion; example: riding your bike.
potential energy	Stored energy; example: standing with your bike at the top of a hill.
thermal energy	Energy produced by the movement and attractions of molecules within a substance.
temperature	A measure of the average thermal energy of the molecules of a substance; when molecules speed up, its temperature rises; when molecules slow down, its temperature drops.
heat	The transfer of thermal energy from a warmer object to a cooler one.

Changes in State	
melting	The process where matter changes from a solid to a liquid.
melting point	The temperature at which matter changes from the solid state to the liquid state.
freezing	The process where matter changes from liquid to a solid.
freezing point	The temperature at which matter changes from the liquid state to the solid state.
vaporization	The process where matter changes from a liquid to a gas.
boiling	Vaporization (liquid to gas) that occurs <u>within</u> a liquid; example: heating a pot of water on the stove.
evaporation	Vaporization (liquid to gas) that occurs at the surface of a liquid; example: a puddle of water that disappears.
condensation	The process where matter changes from a gas to a liquid; example: water vapor becomes water droplets on the grass.
sublimation	The process where matter changes from a solid directly to a gas; example: dry ice creating fog.
deposition	The process where matter changes from a gas directly to a solid; example: frost on the grass
Transfer of Thermal Energy	
conduction	The transfer of thermal energy by physical contact; warming your hands on a hot cup of cocoa.
radiation	The transfer of thermal energy by waves that move through matter or empty space; warming your hands by a fire.
convection	The transfer of thermal energy through the movement of a liquid or gas; drying your hand under a hot-air dryer.