## EXPLORING SCIENCE WORKING SCIENTIFICALLY

Name \_\_\_\_

Class \_\_\_\_

Date \_\_\_\_\_

Draw a ring around a number of stars for each statement. If you are very confident about a statement, draw your ring around all the stars. If you do not know anything about a statement do not draw a ring.

Торіс	At the end of the unit:					
8Ka						
	Recall that energy will be transferred from hotter to cooler objects or materials.	*	*	*	*	*
	Explain how thermal (or internal) energy and temperature are different, and recall the factors that affect the temperature of an object.	*	*	*	*	*
	Recall that evaporation can cool a liquid, and ways of reducing this.	*	*	*	*	*
	Use the particle model of matter to explain cooling by evaporation.	*	*	*	*	*
8Kb						
	Describe how energy is transferred in conduction, convection and radiation.	*	*	*	*	*
	Recall some examples of thermal conductors and insulators, and explain why certain materials are used for given purposes.	*	*	*	*	*
	Use the particle model to explain how energy is transferred in conduction and convection.	*	*	*	*	*
	Explain which energy transfer processes are taking place in given situations.	*	*	*	*	*
8Kc						
	Describe ways of reducing energy transfers by conduction, convection and radiation.	*	*	*	*	*
	Recall which colours are good and poor emitters and absorbers of radiation.	*	*	*	*	*
	Evaluate ways of increasing or decreasing energy transfers.	*	*	*	*	*
8Kc Working Scientifically						
	State the meaning of accuracy and precision.	*	*	*	*	*
	Explain how to avoid systematic and random errors.	*	*	*	*	*
8Kd						
	Interpret Sankey diagrams.	*	*	*	*	*
	Explain what efficiency means, and identify useful and wasted energies.	*	*	*	*	*
	Describe what power means, and how to find the power rating of an appliance.	*	*	*	*	*
	Calculate energy efficiencies.	*	*	*	*	*
8Ke						
	Recall how electricity and natural gas bills are calculated and the units used.	*	*	*	*	*
	Calculate payback times.	*	*	*	*	*