

## UNIT 3 PHYSICS

3.1 How is electrical energy part of your world?		
	Activity	Date
	Handout: Key Terms	
	Textbook: Read pages 184-189	
	Handout: Power Failure!	
	Video: Farm Family Life without Electricity	
	Textbook: Read pages 190-191	
	Textbook: page 191 answer this question in your notebook: Describe three ways that you have depended on electrical energy since you woke up this morning.	
	Handout: Electrical Energy Detective	
	Video: Kinetic and Potential Energy	
	Video: Types of Energy	
	Handout: Types of energy	
	Video: Amazing energy facts to blow your mind	
	Textbook: Read pages 192-193	
	Video: How hydroelectricity works	
	Handout: Charge it	
	Textbook: Read pages 194-197	
	Handout: What Are the Properties of an Ideal Energy Source	
	Textbook: page 198 People Power	
	Handout: Alternative Sources	
3.2 How do electrical charges behave?		
	Textbook: Read pages 202-203	
	Handout: Recalling Atoms and Charge	
	Textbook: Read pages 204-205	
	Handout: Lightning Rock of the Sumas First Nation	
	Video: What is static electricity?	
	Handout: Charge the Tape	
	Textbook: Read pages 206-207	
	Handout: Applying Properties of Electrical Charges	
	Video: 9 Awesome science tricks using static electricity	
	Handout: Repulsion Between Two Charged Objects	
	Handout: Behaviour of Charged Objects	
	Choose ONE:	
	Textbook: page 208 Dig Deeper	
	Handout: The Great Race	
3.3 How do charges flow through the components of a circuit?		
	Textbook: Read pages 214-216	
	Handout: Battle of the Batteries	
	Handout: Separating Charges in a Cell	
	Textbook: Read pages 217-219	
	Handout: Effects of Voltage and Current on the Human Body	
	Textbook: Read pages 220-223	
	Handout: Current Flow in a Closed Circuit	
	Textbook: Read pages 224	
	Choose ONE:	
	Textbook: page 225 Dig Deeper	
	Textbook: page 226 Focus on Physics	
	Hands On Activity: Pick up the simple circuit kit from your teacher and complete the activities	

<b>3.4 How are circuits used in practical applications?</b>		
	Activity	Date
	Video: Practical Electricity	
	Video: Voltage Potential	
	Video: Simple Circuit	
	Video: Battery Energy and Power	
	Web Activity: Battery Resistor Circuit	
	Video: Voltage	
	Video: What is a resistor?	
	Video: Series and Parallel Circuits	
	Web Activity: Series and Parallel Circuits	
	Video: AC vs DC	
	Web Activity: AC vs DC	
	Textbook: page 242 Dig Deeper	
	Textbook: Read pages 234-235	
	Handout: Comparing Current and Resistance	
	Textbook: Read pages 236-238	
	Textbook: Read pages 238-241	
	Video: Volts, Ohms & Amps	
	Video: What is an amp?	
	Video: Ohm's Law	
	Web Activity: Ohm's Law	
	Handout: Using Ohm's Law	
	Handout: Ohm's Law Practice Problems	
	Handout: Ohm's Law More Practice Problems	
	Video: Resistors	
	Video: Does volts or amps kill you?	
	Hands On Activity: Pick up the snap circuit kit from your teacher and complete the activity	
<b>3.5 How can electrical energy be generated and used sustainably?</b>		
	Textbook: Read pages 250-251	
	Handout: Toaster Versus Washing Machine	
	Textbook: Read pages 251-252	
	Handout: Personal Use of Electrical Energy	
	Textbook: Read pages 254-255	
	Handout: Comparing Lighting Options	
	Textbook: Read pages 256	
	Handout: Fight the Phantom!	
	Handout: Comparing Energy Sources	
	Textbook: Read pages 257-259	
	Handout: Map it!	
	Textbook: Read pages 260-261	
	Choose ONE:	Handout: Voicing Your Concerns
		Handout: Connecting with First Peoples Principles
	Choose ONE:	Handout: Create a Sustainable Energy Plan for Your School
		Handout: Energy Source Scenarios
		Handout: A Source of Electrical Energy for Riverside
<b>Unit Assessment</b>		
	Handout: How can you "green" the electrical plan of a home?	