

ENVIRONMENTAL EDUCATION & AWARENESS PROGRAMME PLANNER

PROGRAMME TYPE (circle/cross): **curriculum aligned/**

DETAILS

Name of school/ group			
No learners/ participants expected	No learners/participants actual	Programme length/duration	30 min - 1 hour
Location (reserve/site)		Grade/age group	Grade 7
Is this part of the work plan?	YES/ NO	If no, motivate why the programme is needed	

CONTENT

Theme (circle/cross)	Energy & Climate Change
Topics covered (e.g. water cycle/ importance of water)	Sources of Energy (Renewable & Non Renewable) Insulation & Energy Saving Conserving Electricity in the Home
Curriculum link (for curriculum aligned programmes only) – note subject/strand/topics (if not listed in topics above)	Natural Sciences Grade7 Strand: Energy & Change
Prior knowledge required (if applicable)	N/A
Skills practiced (cross/circle)	Identify categorise develop listen read recognise use senses find discuss write promise relate choose measure
Key message (e.g. we must save water)	We need to save energy .

GENERAL LOGISTICS

	Responsible person	Done (tick)	Status
Invite *			
Venue			
Transport			
Booking confirmed			
WCED permission *			
Presentation equipment & camera			
Risk assessment done, confirmation and checklist sent			
Catering *			
Indemnity *			
Budget and cost centre			

Other:

Plan requested by: _____ (name)
 _____ (date)

Plan approved by: _____ (name)
 _____ (date)

LESSON PLAN

Time	Location	Activity & explanation	Resources & person responsible for bringing/preparing the resource	Facilitating staff (if more than 1, indicate lead facilitator & timekeeper)
INTRODUCTION & ICEBREAKER				
5 minutes		<p>1. Introduction:</p> <p>Who Cape Nature Is Introduce staff Outline of the day Rules of engagement</p>	Presentation	
10 minutes		<p>2. Tuning-In/ Icebreaker: Sources of energy?</p> <p>Know/Do: Energy is needed to make everything work. Non-renewable sources of energy cannot be replenished. Renewable sources of energy are continually replenished. Give some examples of each type.</p> <p>Ask learners to close their eyes and think about when they woke up...and everything they did that used energy until they got to school. Did anything they did rely on coal, oil, gas? Examples switch light on (electricity from coal), cook breakfast on gas stove, drive to school (petrol) etc.?</p> <p>Give learners a few pictures and ask them to come up to the front and sort into renewable and non-renewable energy sources.</p>	<p>Presentation</p> <p>Prestick</p> <p>Labels that say RENEWABLE & NON-RENEWABLE</p> <p>Pictures of renewable and non-renewable sources of energy</p>	
BODY/ ACTIVITIES				
15 minutes		<p>3. Insulation part 1:</p> <p>Explain that heat can be lost through conduction, convection and radiation from our bodies and objects such as electric geysers. Heat can also be gained through these e.g. solar water heaters. People use insulating material to minimise heat loss in winter or gain heat in summer. Insulating materials slow down the transfer of heat.</p> <p>Using the cooler box, explain that it keeps things cool. The walls on top and bottom contain insulating material that stops heat passing into the cooler. Explain that we use the vacuum of a flask to prevent heat from moving from the hot liquid to the cool surroundings.</p>	<p>Presentation, projector</p> <p>Small cooler box</p> <p>Flask</p> <p>4 small pots</p> <p>4 fold up boxes that fit the pots</p> <p>Newspaper x 10</p> <p>Rice</p> <p>Polystyrene balls or chips</p> <p>Sawdust</p>	

		<p>Divide learners up into 4 teams. Each team must make a hotbox using different insulating materials. *Newspaper, Sawdust, Duvet or pillows, Polystyrene.</p> <p>Leave the rice to cook until the end of the lesson (must cook 20 – 30 mins)</p>	A duvet or pillows	
15 minutes		<p>4. Conserving electricity in the home: For a 30 min programme, facilitators can skip the insulation activity and move straight on to this activity.</p> <p>Explain that we have a limited supply of energy There are many different ways to use energy wisely and to save at home by turning off lights, using energy saving bulbs, wearing warm clothing etc.</p> <p>Hand out an electricity saving in our homes worksheet to each learner. They must look at the picture and find all the energy saving devices in the home. They must think of creative ways to save energy in their home. Discuss some ideas.</p>	Page 67 worksheet copies. PSP Natural Sciences book grade 7.	
10 minutes		<p>5. Insulation part 2: Each group must take the temperature of their rice and see what material provided the best insulation. They must record all 4 temperatures and sort them from most insulation to least insulation.</p>	Thermometer	
CONSOLIDATION & EVALUATION				
5minutes		<p>Consolidation:</p> <ul style="list-style-type: none"> - Ask learners to draw one pledge on how they will save electricity at home. 	Pledge papers, pencils, crayons	

Acknowledgement

Primary Science Programme (PSP),



, www.psp.org.za

