

ecoMentors Lesson Plan Template: Helping kids explore the planet! www.ecomentors.ca

Title: Energy in our lives

Grade Level(s): 1

Time/Date:

School:

Teacher:

Directions to school, class:

Contact Info:

Ontario Curriculum Connection: Energy and Control – Energy in our lives

Vocabulary: Words & Concepts your class may be learning, look these up yourself too!

Energy – the ability to make something happen

Electricity – The energy we need to make equipment work

Environment - All the things around us that help us live

Materials and Equipment: List these before and while you plan and revise so you're prepared.

Black board and chalk

Food chain SUN worksheet (prepare in advance!)

What is your class accomplishing?: Learning & Activity Goals, Objectives

- **Learning that the sun is our source of energy**
- **Understand the importance of food**
- **Understand that energy production comes with problems**
- **Understand that there are different forms of energy**
- **Know how to reduce energy consumption**
- **Understand the importance of energy in our, and animals, lives**

PROCEDURE

The Spark: Introductions, Demonstrations, Show and Tell, Topic Intro (Break the ice!) ~5-10min

Introduce yourself. Ask the students to stand in a circle and make their favorite movement for 30 seconds, without leaving their spot in the circle.

Where did you get the energy to do this movement? Let the class come up with several suggestions. They will probably answer with food > continue to brainstorm!

Brainstorming, Getting ideas, Connecting ideas (assess their knowledge!) ~10-20min

But how does your food get energy in it? What makes vegetables grow? It is the sun! How does the sun give you the energy to move? Summarize that the energy that the sun gives to plants is in your food, and after eating it becomes a part of you! Let the class think of other things that the sun does (warmth, day-night, ..)

Activity, Game, Exercise, Debate, Puzzles, Problem Solving, Role Play ~10-30mins

Act out:

Read the following story and let the students act out the different organisms.

Curl into a ball and imagine that you are a tiny seed buried in the soil. The energy from the sun is stored into your seedpod and nourishes you as you begin to grow. Soon you burst open, and your roots grow downward. Sucking in particles of water and particles of sunlight energy. Your grasses grow tall as they use the sun's energy to make food out of water and air. A bug crawls through your grassy top, nibbling on the green blades (Let the students act out the bug), the bug takes in the particles of sunlight from the plant. The bug crawls high on a blade of grass. A sudden burst of wind shakes the grass and... SPLASH! The bug has fallen into a stream. Under the water a fish notices the bug and... SNAP! A big fish has eaten the bug (Let the students now act out the fish) and takes in the particles of sunlight that were inside the bug. Along the edge of the stream is a bear. He slaps his huge paw into the water and the fish lands on the ground. Then, gulp! The bear has swallowed the fish (Now the students become the bear). The bear walks happily through the woods, and when it gets tired it falls asleep. A hunter creeps through the woods. He sets an arrow in his bow and lets it fly. The hunter has killed the bear (become the hunter).. The meat of the bear is made into a stew for the hunter's family. Now the particles of sunlight are inside you! Where will they go next?¹

After the acting out; ask a couple of questions about the story and what happened with the particles of sunlight. You could make a relation to the food chain. Formulate your own questions:

- 1.
- 2.
- 3.

Take out the cards of the food chain SUN work sheet (cut the separate pictures out before you go). Let the class stick the cards onto the blackboard in the right order, and let them explain what happens with the energy from the sun.

Activity, Game, Exercise, Debate, Puzzles, Problem Solving, Role Play(Pt. II or Cont...) ~10-30mins

Electricity:

What makes your TV work? What is electricity? The energy that we use to make electrical things work. *Does our body also need electricity?* No, we use another kind of energy; the energy from our food!

Who can name some other things that use electricity? Write them down on the black board.

Who knows where this electricity comes from? Most electricity comes from burning fossil fuels like coal and oil.

After burning fossil fuels, the electricity is brought to your house by... (let the class come up with ideas).

Electrical wires! How does the electricity go from the wire into your TV? We use a plug!

Environment:

Who can tell me what the environment is? Everything that we need to live – air, water, trees, animals, food...

What happens when you burn something? Get smoke. What does this smoke do to the air? Animals? Plants?

Us? What happens if you burn coal and oil? Do you think that burning fossil fuels to make electricity is good for the environment? No? What would happen if we had burned it all? No more electricity. What could we do at home, that could cause less smoke pollution? If we use less electricity, then less fossil fuels are burned.

Let the students come up with at least 7 ways to use less electricity at home and at school. Write these (in simple words OR in pictures!) on the blackboard.

Contingency, Plan B, extra game or activity (Back up plan) ~5-10mins

Can you make a drawing of an animal using electricity? Think of all the things you use everyday that use electricity. For example: A bear shaving her legs / a shark baking muffins / a giraffe playing video games

A monkey watching TV

Encourage the students to share their drawings with each other.

Presentation of Findings ~5-15mins

Review, Conclusion and steps towards continued action ~5-10mins

What would happen if there was no sun?

Why is our food so important? It gives us energy

Why is energy so important? It makes us move

How do we make electrical energy? Why is that bad for the environment?

How can we save energy?

References

1. Ontario EcoSchools – Celebrating EcoSchools Festival Ideas (Elementary)

Great work ecoMentor! After use of Lesson Plan revise, add ideas and repeat!