The Path of Sunlight

Grade 1 – Understanding Matter and Energy

Lesson Plan

Cross Curricular	N/A
Safety Notes	N/A

Big Ideas

The sun is the principal source of energy for the earth.

Specific Expectations

2.6 investigate how the sun's energy allows humans to meet their basic needs, including the need for food

Description

Almost all energy sources on Earth, and especially the ones humans draw upon to survive, can be traced back to the Sun. In this lesson students follow the path of sunlight through the ecosystem. Through the activity of giving light from one life form to the next we see how it makes life possible and gives us energy needed to live.

Materials

- "Sunlight" material for students to pass around. Tennis balls or yellow cloth/tulle

Accommodations/Modifications

N/A

Introduction

Today we are talking about Sunlight and how important it is for all of us!

- What can you tell me about sunlight? (Bright, warm, brings us daytime, allows us to see etc.)
- What is the Sun? (A very special star, the one we on Earth go around, etc.)

Sing or listen to "Mister Sun" by Raffi if you want. Sets the mood nicely!

Sunlight is a form of energy. Energy can power things.
Living things NEED energy to survive!

- Do you need energy? Where do you get it from? (food, sleep – lets you refresh and absorb the food you ate)
- Where do plants get their energy from? (The Sun – plants need sunlight to survive)

To understand better where all the energy living things on Earth need to survive comes from we will now do an activity together.

Action

The idea for the activity is that the students see how sunlight comes from the Sun and travels through the food web to reach every living being. They will see that humans get almost all of the energy we need from the Sun.

We need a volunteer to be the Sun.

- Pick one students and give this student a basket full of "sunlight". Could be tennis balls or yellow tulle etc.

The Sun sends its light through space to the Earth. Once it arrives here who will absorb this light to help it grow? (Plants – keep guiding the discussion until students can settle on this)

- Pick a few students to be plants. Optional: give them a picture of a plant to hold.
- Make the Sun volunteer hand one piece of sunlight to each plant.
- Discuss how these plants have now absorbed the sun's light.

Oh oh. There's someone coming along here who would like to eat these plants.

- Who is it? Take several examples of animals, or humans too.
- We call these animals herbivores (or omnivores if they eat meat too).
- Then choose volunteers to represent a few of these plant eaters. Have them choose one of the plants to eat.
- When you eat the plant to absorb the energy stored in the plant – you get the sunlight stored in the plant!
- Have plant volunteers give their sunlight to the animals who eat them.

Are we done? No! Who wants to eat these animals?

- Repeat discussion and settle on some carnivores, including humans, who want to eat the herbivores.
- Pass the sunlight along from the eaten to the eater.

Repeat this game a few times if desired. Change some elements to help students see how the fundamental outcome is always the same – sunlight moves up the food chain.

Consolidation/Extension

What do we notice?

- Every life form gets sunlight energy from what it eats.
- Humans get energy from the Sun through their food.

What do you like to eat?

- Take examples. Then work backwards with each example to see how the energy you get from it also comes from the Sun.