

Energy is an important part of life. Everything that any living thing does is powered by energy. Animals get energy from their food, either plants or other animals. Whereas plants make their energy from sunlight, water and carbon dioxide, this is known as photosynthesis. How energy moves through an ecosystem is very important and is called either a food chain or food web depending on how many different types of living things are involved. Energy always starts with the sun, then moves to plants and then to animals and because of this, plants are known as producers (as they make the food) and animals are called consumers (as they eat the plants).

Here, children will learn what a food chain or web is, and how energy travels through an ecosystem and links every living thing.

Stacking cups

Here is a fun and easy creative activity which highlights how a simple food chain works.

Instructions

1. Have the group write on the rim of each of the cups a species from a food chain provided or have them research a simple food chain found in the local environment.
2. On each of the cups draw the animal or organism. Make this as colourful and exciting as possible
3. After all the cups have been decorated. Discuss with the group what cup should start the food chain and what species come next. You can also discuss what will happen if one of the levels of the food chain is removed.

Resources

- Polystyrene cups
- Marker pens
- Colouring pens

Pin board food webs

This is a useful activity to show how a food chain becomes a food web and how a single food source can be very important for a whole ecosystem.

Instructions

1. Have the group draw different animals and plants that can be seen in the area to create small flash cards. These should include plants, insects, small mammals, larger mammals or birds. If all these groups are included then a whole food web can be created.

2. Cut out the cards and start to create a simple food chain by using push pins to secure the cards to the notice board or wall and then elastic bands to link the cards together.
3. After a simple food chain is produced, start to add more species to show that many species may use the same food source or be predated on by the same predator. You can even discuss what will happen if a species in the food chain is removed and the possible consequences for the rest of the web.

Resources

- Notice or pin board
- Card
- Pens or pencils
- Push pins
- Elastic bands or string

Food Web game

A more active way of learning about food webs. This can be done in or out doors.

Instructions

1. Have the group stand in a circle.
2. Give each person a card or picture with a type or species of animal or plant, with one person being the sun.
3. Starting with the sun pass a ball of string around the group following a typical food chain.
4. Each person who has been passed the ball of string previously should still be holding on to a piece of string.
5. As the string is passed around, a web should form around the circle showing how each organism is connected to one another
6. After the web has been created lay out the finished food web on the floor with each of the cards. Highlight which ones are producers and the consumers.

*This can also be done by passing a ball around without generating the web.

Resources

- Cards or name tags with species of plants, animals for each person in the group. One of these must be 'the sun'.
- Ball of string, wool or a football