
2nd Grade Life Science Curriculum Map

Growth & Change in Animals

The eight lessons fall under eight topics that relate to aspects of life systems: Growth and Change in Animals.

In each section you will find teacher notes designed to provide you guidance with the learning intention, the success criteria, materials needed, a lesson outline, as well as provide some insight on what results to expect when the experiments are conducted.

Suggestions for differentiation are also included so that all students can be successful in the learning environment.

Eight Topics Include:

Lesson One: Invertebrates

Students will learn about the different types of invertebrates and their physical characteristics.

Lesson Two: A Study of Invertebrates

Students will learn about the behavioral characteristics of invertebrates, through research and through compare and contrast.

Lesson Three: Birds

Students will learn about the physical characteristics of birds, make comparisons between birds in flight, and research to learn more about bird behavior.

Lesson Four: Fish

Students will learn about the physical characteristics of fish, and research to learn more about fish behavior.

Lesson Five: Reptiles and Amphibians

Students will learn about the physical characteristics of reptiles and amphibians, and research to learn more about a reptile or an amphibian.

Lesson Six: Mammals

Students will learn about the different categories of mammals and their physical characteristics; then research to learn more about a mammal of their choice.

Lesson Seven: Life Cycles

Students will learn about the life cycle stages of different animals.

Lesson Seven: Life Cycle Template Google Slides Activity

Each set of cards shows five stages of development except for the Sea Turtle, which shows four stages.

Students will learn about the life cycle of these five species:

1. horse
2. monarch butterfly
3. frog
4. chicken
5. sea turtle

The template can be used as a hands-on activity to determine how well a student understands the animal life cycle process. Great for visual learners. The clear, straightforward presentation of essential facts, the colorful, highly visual elements, and the hands-on activities will capture the interest of students with a variety of learning styles and skill levels. The links direct you to the google slide activities. Students will drag and drop the pictures and text into the correct order showing the stages of development. The PDF includes photo cards and templates, that can be printed and used as manipulative for in-class activities.

Lesson Eight: Co-Existing

Students will learn about how animals and humans co-exist on Earth and how they depend on each other for survival.

Meets the New 2022 Grade 2 Ontario Science Curriculum.

CO-EXISTING

LEARNING INTENTION:

Students will learn about how animals and humans co-exist on Earth and how they depend on each other for survival.

SUCCESS CRITERIA:

- identify animals that are useful to humans
- describe the ways that animals are useful to humans
- recognize ways that humans help and protect animals and their habitat
- recognize ways that humans and animals are harmful to each other
- describe how harmful incidents between humans and animals can be reduced
- create a food chain using pictures and written descriptions
- create a food web using pictures and written descriptions

MATERIALS NEEDED:

- a copy of “Animals and Us” worksheets 1, 2, and 3 for each student
- a copy of “Help Us!” worksheet 4 for each student
- a copy of “Humans Helping Animals” worksheet 5 for each student
- a copy of “Food Chains” worksheets 6 and 7 for each student
- a copy of “Make a Food Web” worksheets 8 and 9 for each student
- access to the internet or local library
- pencils, pencil crayons, markers, chart paper, scissors, glue

PROCEDURE:

***This lesson can be done as one long lesson, or done in five or six shorter lessons.**

1. Divide students into pairs and give them worksheet 1. They will engage in a ‘think-pair-share’ activity to discuss what animals are useful to humans.
2. Give students worksheets 2 and 3. They will list the ways in which each animal is useful to humans.
3. Give students worksheet 4. Choosing an animal that they recorded on Worksheet 1, students will make a web to depict all the ways it is useful to humans. A follow-up option is to have students present their work to the large group, or in a small group. This will generate rich discussion about the different ways in which animals are useful to humans. Student work could be displayed on a bulletin board.
4. Divide students into pairs and give them worksheet 5. They will engage in a ‘think-pair-share’ activity to discuss ways in which humans are helpful and protective of animals and their habitat. Come back together as a large group. Pose these questions: What can cause a decline in animal population? What can happen if there is a decline in animal population?
5. Engage students in a group discussion about the ways in which animals can be harmful to humans, and the ways in which humans can be harmful to animals. Answers can be recorded on chart paper. Pose this question: How can these harmful incidents be minimized?

6. Give students worksheet 6. Read the information and discuss to ensure students' understanding of the material. Give students worksheet 7 to complete. Students may need access to the internet or a local library to get information to complete their food chain. A follow-up option is to have students present their food chain within a small group. This will enhance their knowledge of different food chains that exist on our Earth, and reinforce the understanding that every living thing has a purpose.

*As a further activity to enhance the learning about food chains, show students The Magic School Bus episode called "Gets Eaten". Accessing the internet, go to www.youtube.com for the full episode. A follow-up option is to have students illustrate the food chain in this episode.

7. Broaden students' knowledge by discussing food webs. Explain that all plants and animals are interconnected. Many connections exist within a small group of plants and animals. Using worksheets 8 and 9, students will create a food web. Students may need access to the internet or a local library to get information to complete their food chain. Food chains could be displayed on a bulletin board. A follow up option is to have students explain their food web in words, then attach it to their food web display.

DIFFERENTIATION:

Slower learners may benefit by working with a partner to make a food web.

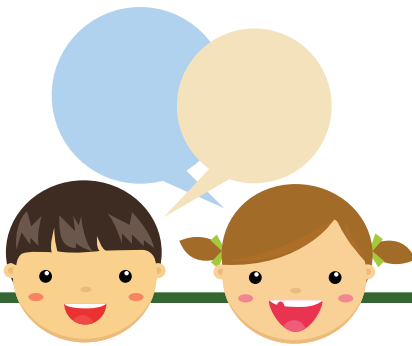
For enrichment, faster learners could add plants and animals of their choosing to the food web by drawing them in the empty spaces on the page, and then draw their connections to the other plants and animals in the existing food web. They could also choose to create another food web of their own.



Animals and Us

There are a lot of different species on our planet Earth. Humans and animals have to share the Earth. In fact, all the different species on Earth need each other to live and grow. This makes us useful to each other.

Think **Pair** **Share**



With a partner, do some thinking and sharing of ideas about what animals are useful to humans. Record your ideas in the box.

Many animals help humans by giving us food, material for clothing, fertilizer for our gardens, and even being friendly pets that make us happy.

In the chart, explain how each animal is useful to humans. Some animals may have more than one use!

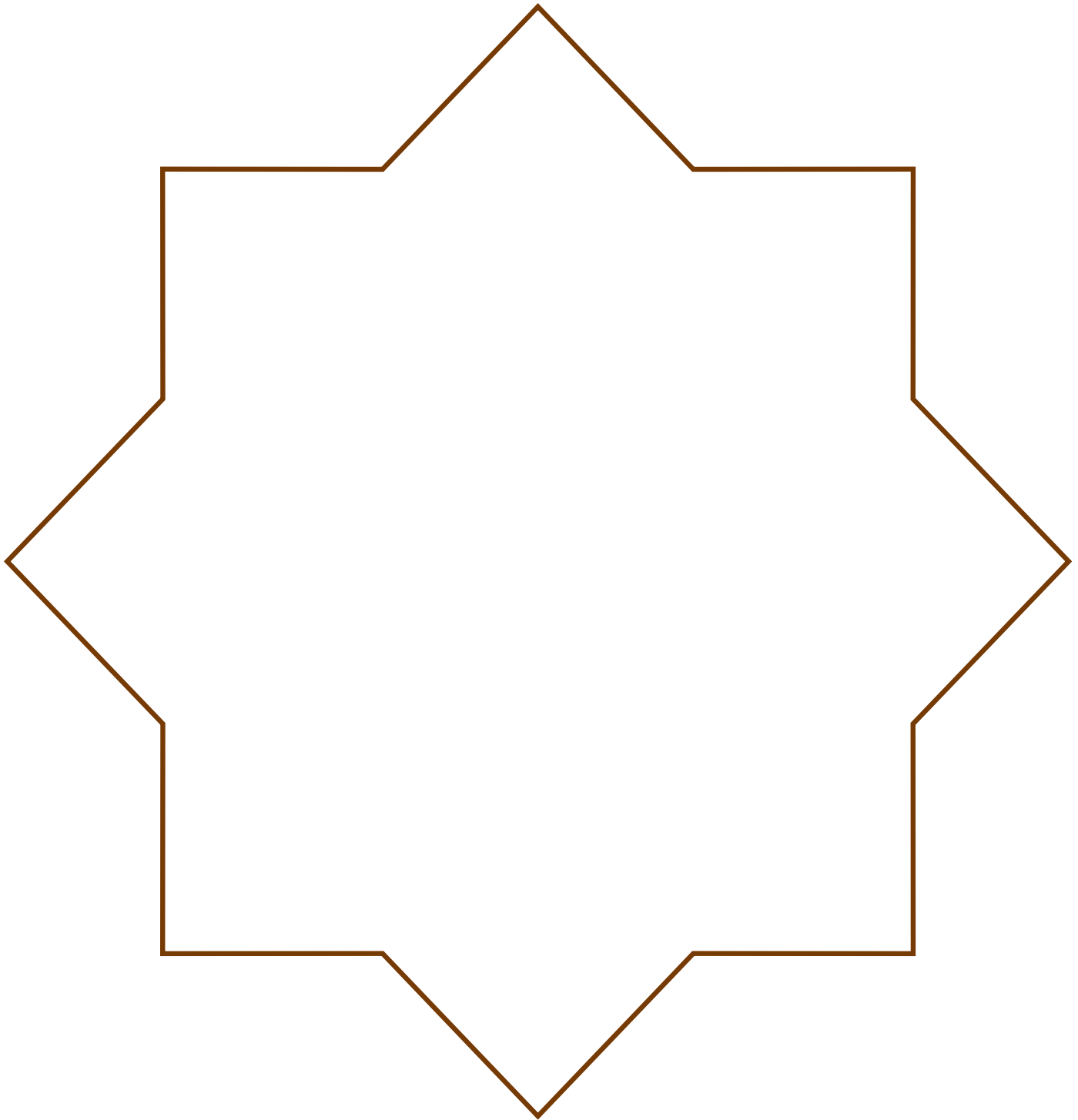
Animal	How it is useful to humans
 sheep	
 cow	
 fish	
 chicken	

In the chart, explain how each animal is useful to humans. Remember that some animals may have more than one use!

Animal	How it is useful to humans
 goat	
 bee	
 worm	
 horse	
 dog	

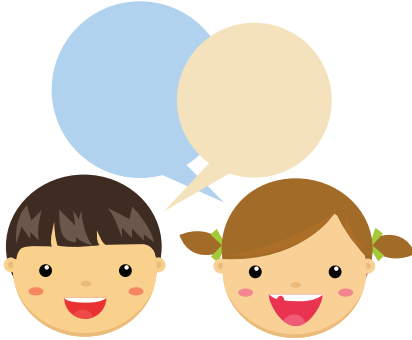
Help Us!

Choose one of the animals that you recorded on Worksheet 1, write it in the box title. Now, draw a picture of it in the centre of the web. Complete the web to show all the ways it is useful to humans.



Humans Helping Animals

Think **Pair** **Share**

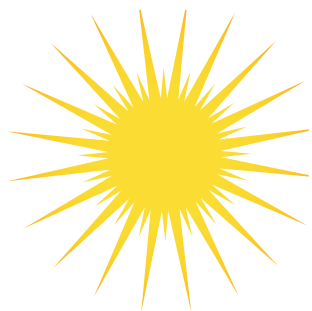


Humans can be helpful to animals too. With a partner, do some thinking and sharing of ideas about the ways that humans help and protect animals and their habitat. Record your ideas in the box.

Food Chains

You have learned that animals can be useful to humans. Did you know that animals are also useful to each other?

Animals get energy from plants and other animals because they provide food for each other. They are all part of a food chain. Let's learn more about this!



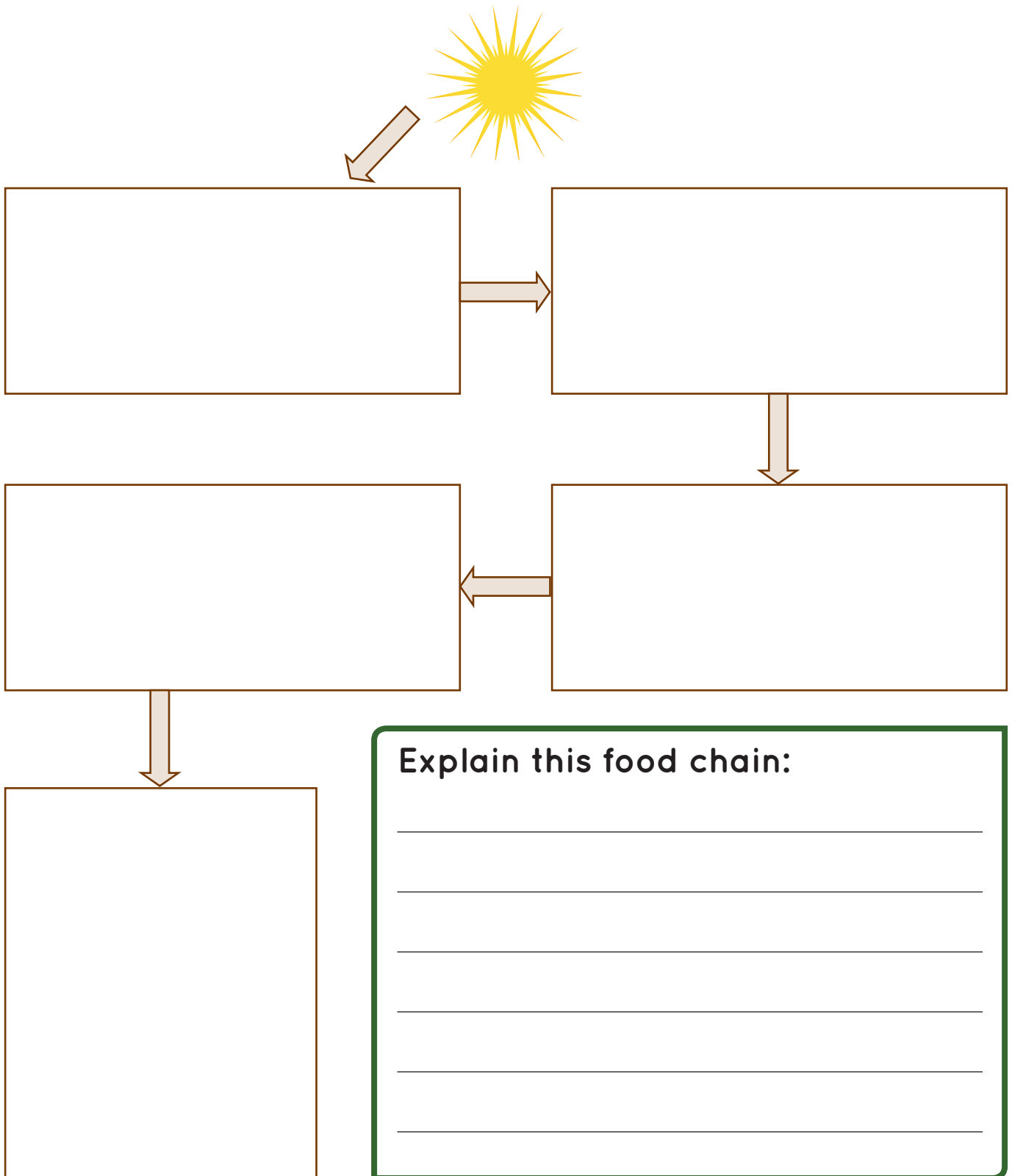
So, it all begins with the Sun. You see, the Sun's heat energy makes plants grow. Plants are food for some animals. Some animals are food for each other.



This is a food chain. Grass is food for a grasshopper. A grasshopper is food for a mouse. A mouse is food for a snake. A snake is food for a hawk.



It is your turn to create a food chain. In the boxes, draw the living things that are part of a food chain. Start with the Sun!



Make a Food Web

Food chains are all connected. A food web is a bunch of food chains. Let's create a food web!

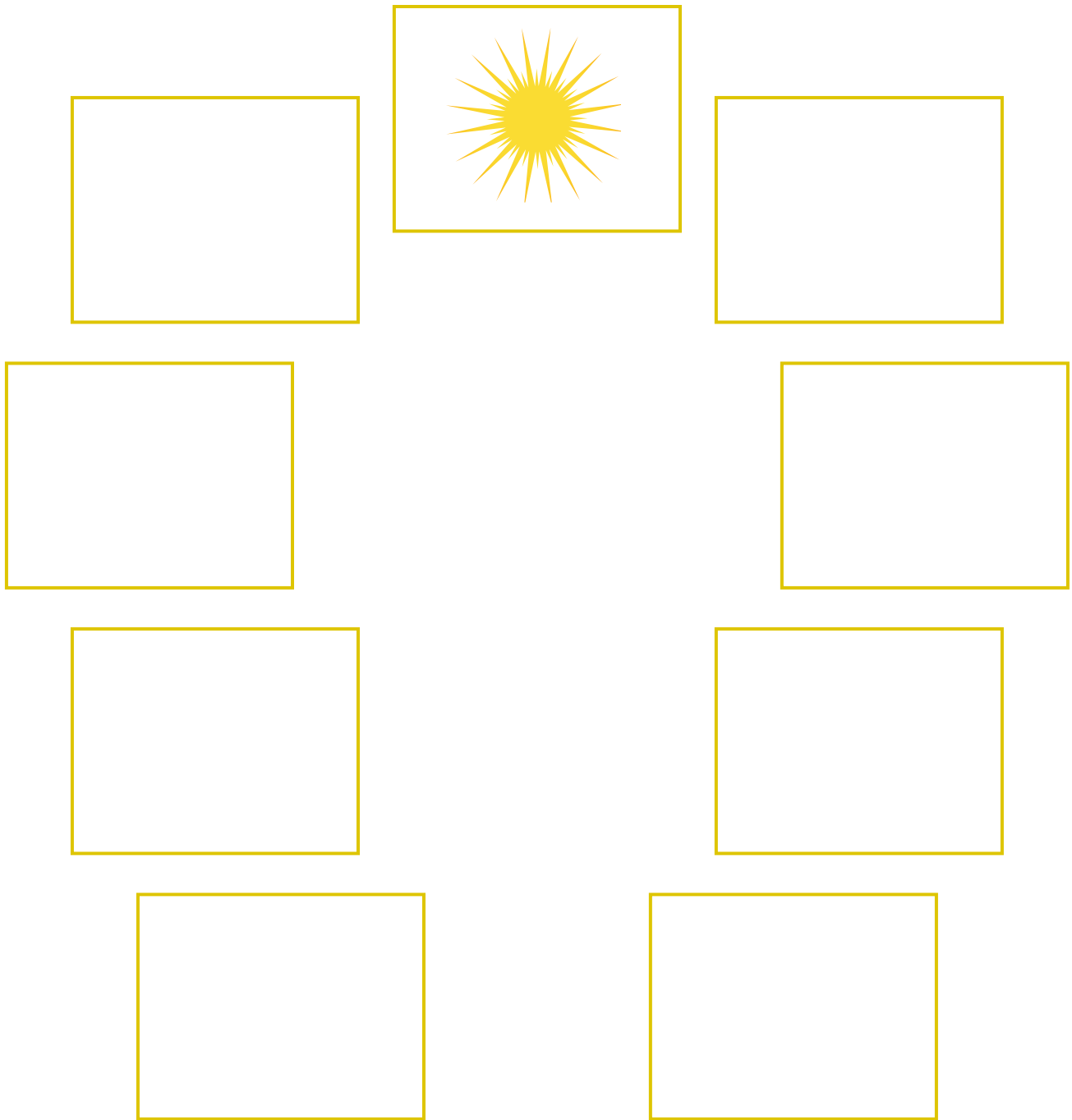
Materials Needed:

- scissors
- glue

What To Do:

1. Cut out the pictures on worksheet 8.
2. On worksheet 9, glue the pictures to make a food web.
3. Draw lines between plants or animals that eat each other.





Why is it called a food web and not a food chain?
