

**5-PS3-1** Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.



- Indicates opportunities for integrated English language development (reading, writing, listening, speaking).

## Lesson 3 - Food Webs

### Engage



#### **In-person or online activity:**

Whole class - Reviewing their Food Chains from 5-LS2-1 (Lesson 2), students will review the terms, consumers, producers and decomposers. Students can use the same picture cards/posters from lesson 2 to review the cycles and terms.

Introduce Phenomenon: [Fabulous Food Chains](#) (3:24)

Students could use a [jamboard](#) to record what they know/remember from the previous lesson, prior to the discussion. Students can also record what they want to learn about food webs:



Review or lead a discussion on the key Ideas.

- All organisms in the food chain need the sun's energy to survive.
- Through the photosynthesis process, producers, such as grass, absorb the sun's light energy to produce food (stored sugar and starches).
- The sun's energy is passed on to consumers when a consumer eats the plant or eats other animals. Consumers cannot make their own food, so they have to consume other organisms.

### Explore



#### **In-person or online activity:**

Have students read:

[ReadWorks: The Ecosystem of the Forest \(PDF\)](#)

[ReadWorks: The Ecosystem of the Forest - Google Slides version](#)

Have students take notes in their science journals, or assign sections to the groups and have them present their notes to their groups and take notes on each other's sections. A great graphic organizer for this is the Four Corners graphic organizer.

## Explain

[Four Corners graphic organizer \(PDF\)](#)

[Four Corners graphic organizer - Google Slides](#)

### **Virtual learning modification:**

In virtual learning, students can use the digital sticky notes in the Google Slides version of the reading to take individual notes or students can take notes on paper. Students can be assigned to groups for work on the Four Corners activity, using a shared Doc where they can add their individual notes and they can make copies of the graphic organizer to keep for their reference. Students could also discuss their findings in breakout room discussions.

### **In-person or online activity:**

Teacher will explain that energy in an animal's food was once energy from the sun. Energy passes through the ecosystem changing forms as organisms metabolize, produce waste, eat one another and eventually die and decompose. Each food web and ecosystem needs a constant supply of energy from the sun to survive.



### **Additional Resources:**

**Mystery Science-** Teacher can facilitate the learning through the mystery/lesson. There are activities that can be assigned through Google Classroom and modifications for virtual learning as well.

[5th grade, Web of Life, Lesson 6](#)

**BrainPOP-** Students can watch the movie(s) and complete the review or graded quiz as a check for understanding. There are additional readings and activities as well.

[Ecosystems](#)

[Food Chains](#) (also listed in lesson 2)

**Zingy Learning-** Students can complete the interactive lessons and quizzes as a check for understanding. There are additional short answer questions that can be added to a Google Doc or Form as well.

[5th grade, Unit 7, Lessons 1-6: Food Webs](#)

## Elaborate



### Achieve3000-

#### [What's Making the Sea Lions Sick?](#)

Have students complete the 5-step lesson. As the teacher, you will facilitate the learning through the lesson. Be sure to have students read both pages of the article.

#### **\*Supplemental Reading - TCM Science Readers**

##### [Life and the Flow of Energy](#)

##### [Making an Ocean Ecosystem](#)

\*If you attended Science Saturday, these are the titles that are in your box that go with this standard. They can be used in addition or in place of material above. A digital PDF copy of the reading is available for both of these titles.



#### **In-person or online activity:**

##### **Poster Projects**

Give students a goal to:

- Construct a poster that is fact-based and will make sense to someone who doesn't know how animals obtain energy.
- Students will need to answer the following questions on their poster. Student posters will start with the main Idea *that the energy in animals' food was once energy from the sun.*

Students will use [Picture Cards \(PDF\)](#) to create their posters. Students can work collaboratively in-person or in a collaborative Slides presentation during virtual learning, if desired. If working collaboratively, each partner can use a different colored marker or use different colored text to show their work. Alternatively, students can work individually and conference with each other about their posters using breakout rooms during Zoom meetings.

[Picture cards - Google Slides version](#)

##### [Poster Example](#)

Students will answer questions such as:

- What is the food chain?
- What is a food web?
- What is the difference between a food web and a food chain?

## Evaluate

- What is energy?
- Does all food have energy from the sun?
- What is the sun's energy?
- What would it be like without the sun's energy?
- What are producers and consumers and how important are each of these roles in an ecosystem?

### In-person or online activity:



Students will complete a gallery walk of everyone's posters. Using sticky notes they can leave constructive feedback or questions for the individuals or groups.

In virtual learning, students can attach their Google Slides posters to a Padlet or add them to a collaborative Google Slides presentation. The comment feature can be used in Padlet and digital sticky notes or the comments feature can be used, if desired, for students to leave feedback in Google Slides

[Food Web Poster Gallery Walk - Google Slides](#)