

STAAR Review to Go: Science Features

10: Flow of Energy
Reporting Category 4, TEKS 4.9B

TEKS

4.9 Organisms and environments. The student knows and understands that living organisms within an ecosystem interact with one another and with their environment. The student is expected to:
B. describe the flow of energy through food webs, beginning with the Sun, and predict how changes in the ecosystem affect the food web.

English Language Proficiency Standards (ELPS)

5.B Cross-curricular second language acquisition/writing. The student is expected to write using newly acquired basic vocabulary and content-based grade-level vocabulary.

Materials

For the folder

- cardstock
- small sticky note, 1" x 1" or similar
- snack-size plastic resealable bag
- tape

For each student

- **Flow of Energy**

STAAR® Release Test Questions (TEKS 5.9B) that are supported by 4.9B

- 2013: Questions 8, 27
- 2014: Questions 9, 28, 37
- 2015: Questions 17, 32
- 2016: Questions 4, 37
- 2017: Questions 5, 22

TEKS and ELPS are embedded in each activity and are reflected in the content and language objectives.

Materials lists aid in activity preparation.

The titles of **Activity Masters** and **Student Pages** are printed in bold for ease of reference.

STAAR® Released Test Question item numbers for the grade 5 exam are listed for reference or further review.

10: Flow of Energy
Reporting Category 4, TEKS 4.9B

Sample Layout



Activity Folder Sample Layouts provide an option/example for assembling folders.

STAAR Review to Go: Science Features

Folder tab label: RC 4 TEKS 4.9B
Flow of Energy

Folder Tab Labels are provided to aid in organization of folders.

Cover:

Reporting Category 4
Organisms and Environments

TEKS 4.9B

Flow of Energy

region 4

Language Objectives and **Content Objectives** describe the focus of the TEKS-based activity in student-friendly language.

Content Objective

I will predict how changes in an ecosystem affect the organisms in a food web.

Language Objective

I will use the words *Sun*, *producer*, and *consumer* to write about how energy flows.

Key Questions

1. How does energy flow through a food web?
2. What happens in a food web when change occurs in an ecosystem?

Key Questions help students focus on what they need to know after completing the tasks in the activity folder.

region 4

STAAR Review to Go: Science Features

Flow of Energy Instructions

Task 1: Effects of Change

- Observe the food web.

Varied border designs are used to differentiate tasks.

border to fill in the blanks on the statement.
population that is declining for each statement.
ther an increase or decrease in the affected

population.

- Record your answers and complete the statement on the handout.
- Repeat these steps three more times using cards with similar borders.

Task 2: Flow of Energy

- Write on your handout one sentence that describes how energy flows through a food web. Use the words *Sun*, *producer*, and *consumer* in your sentence.

Task 3: Assessment

- Read and work through the assess

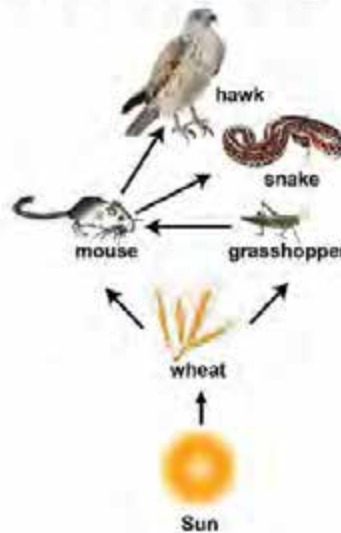
Each activity includes a literacy component or career connection to foster student engagement and processing.

Task 3: Assessment

Observe the food web.

What will most likely happen to the organisms in the food web if a drought occurs?

- A. The grasshopper population will increase because the mouse population will not be eating wheat.
- B. The mouse population will decrease because a lack of water will cause a decrease in wheat.
- C. The snake population will decrease because the hawk population will have more mice to eat.
- D. The hawk population will increase because the snake, mouse, and grasshopper populations will have more to drink.



region 4

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Name _____ Date _____

Flow of Energy

Task 1: Effects of Change

1. The _____ population declined due to _____
This caused the _____ population(s) to _____
because _____

2. The _____ population _____
This caused the _____
because _____

3. The _____ population _____
This caused the _____
because _____

4. The _____ population _____
This caused the _____
because _____

Task 2: Flow of Energy


Task 3: Assessment

The correct answer is _____ because _____

Each activity includes a student takeaway that provides students with a study resource.

Task 2: Flow of Energy

Think about this . . . You are part of a food chain.



What is the energy source for the food you eat? How is that energy transferred to you? Use the words *Sun*, *producer*, and *consumer* in your writing.

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**Task 1:
Effects of
Change Cards**

grass	a wildfire	rabbit
snail	pesticides	robin
snake	habitat loss	rabbit
hawk	disease	snake, rabbit, and robin

Some review activities include card sorts or have other manipulatives. Cards are stored in the folder either in a pocket (created using cardstock or an envelope) or in a resealable plastic bag.

Cut out the arrow graphic and fold on the gray dotted lines as shown. Glue the two sections with increase and decrease together. Glue the two flat sections with arrow bases to the indicated box on the Task 1: Effects of Change folder piece.

