

# Food Chain Model



## Objective

Students will use critical thinking to design and create a model of how energy flows through a food chain containing a decomposer, producer, consumer, and predator.

## Standards

### NGSS: 5-LS2-1

Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

## Engagement

1. Discuss some examples of a food chains and/or food webs with student. Example: Shark (predator), Fish (consumer), kelp (producer), fungi (decomposer).
2. Model how to trace the flow of energy through the food chain starting with the sun's energy and decomposers helping to feed the producer, the producer feeding the consumer, and the consumer feeding the predator.
3. Students should conduct research on a food web of their choice that contains a predator, consumer, producer, and decomposer. In students' research, they should visualize the organism at each level, so they can re-create that organism in their model later.
4. While students map out their food chains, have them use arrows to show the flow of energy from one level of the food chain to the next. A doodle of what that organism looks like can also be beneficial for designing their model in the next steps.
5. After students have their food chain mapped out, have them do a rough sketch of what their model will look like. Have them consider sizing of the organisms at each level of the food chain.

## Grade Level

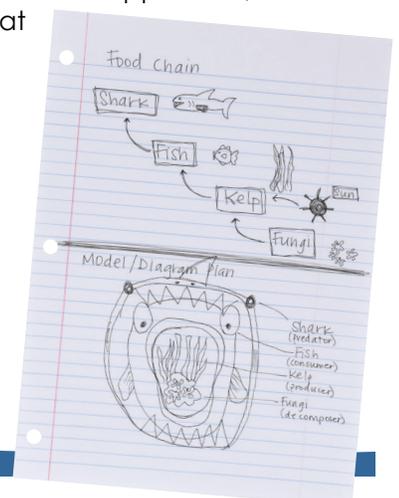
Fifth Grade

## Key Vocabulary

- Food chain/web
- Predator
- Consumer
- Producer
- Decomposer
- Ecosystem
- Energy Transfer

## Materials

- Tru-Ray® Construction Paper, #P6586
- Ticonderoga® Yellow #2 Pencil, #X13806
- Prang® Glue Stick, #
- Creativity Street® Wiggle Eyes Storage Stacker, #PAC3409
- Scissors



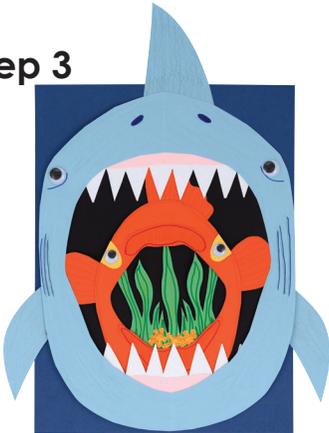
## Step 1



## Step 2



## Step 3



## Step 4



## Activity

1. Give students time to choose construction paper colors they'll need for each of their organisms. Encourage students to start with the largest organism (predator) and make it as large as they can. Model folding the construction paper in half, drawing with a pencil the outline of the organism's mouth and the outline of the inside of the open mouth—leaving about two inches of paper between the lines.
2. Cut out construction paper organisms for each level of the food chain, ensuring each level fits within the one before. Lay each of the organisms out on a larger piece of construction paper before gluing anything down.
3. Encourage students to use additional construction paper, wiggle eyes, markers, and other art making material to add detail and identifiable features to their organisms. Glue this all down on the piece of construction paper that is used as the background.
4. Using a piece of tag board, have students write out the food chain with arrows showing the flow of energy from one level to the next.

## Assessment

Students' models should be assessed for their ability to correctly demonstrate the flow of energy between predators, consumers, producers, and decomposers. Each of the levels should be labeled correctly with the name of the animal, and the tier of the food chain it occupies. Arrows should be pointing in the correct way to show the movement of energy from one level to the next.

## Extension

Have students write a paragraph or two telling the story of the predator getting energy from the consumer (and the consumer getting energy from the producer, and so on). They can make this a non-fiction writing piece or a narrative.