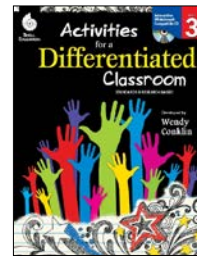
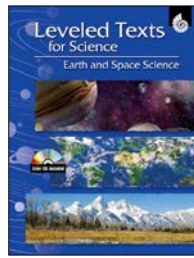
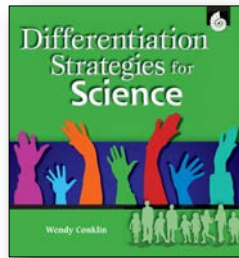
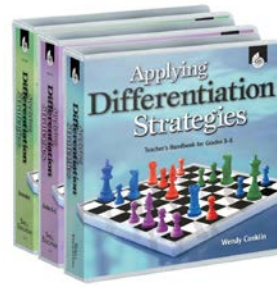


Differentiation Strategies for Science

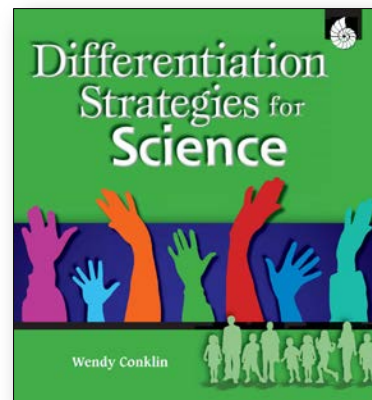


Learning Objectives

I. Differentiation 101

II. Strategies

- Tiered Assignments
- Tiered Graphic Organizers
- Leveled Questions
- Multiple Intelligences
- Menu of Options
- Interest Centers

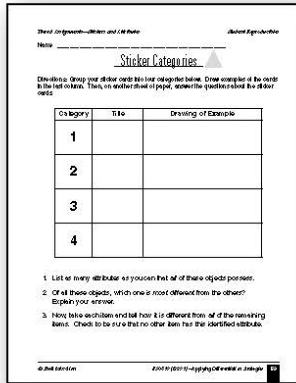


Anticipation Guide

Directions: Determine if each statement is true or false.

Pre-test	Statement	Post-test
	There is only one right way to differentiate.	
	You have to differentiate all the time to be effective.	
	Differentiation cannot include whole-group instruction.	
	Differentiation doesn't work when you're worried about high-stakes testing.	
	Differentiation is only for students in special education.	
	Differentiation is the same thing as individualization.	
	Differentiation encourages mastery for all students.	
	There is no fair way to grade differentiated assignments.	
	Above-grade level students should be used as tutors for below-grade level students.	

Stickers and Attributes



Overview of Activity

- ▶ In this activity, students classify stickers as a tiered activity. Content and process are differentiated according to readiness.
- ▶ Students are given sets of cards to classify. The assignment is tiered because all students are working on the same skill (classifying objects), but each group is working at a different level of difficulty and complexity.
- ▶ In the end, students check their work with partners and defend their classification reasoning.

How This Strategy Benefits Students

- ▶ Students who are **above grade level** benefit from tiered assignments because the assignments provide the challenge and complexity necessary for continued growth and learning.
- ▶ Students **on grade level** can work on assignments that provide enough challenge and motivation for learning.
- ▶ Tiered assignments help **below-grade-level** students find success at their own levels of readiness while still working on the grade-appropriate skills that are necessary for their growth and development.
- ▶ Using tiered assignments in a classroom with **English language learners** provides time for you to focus on their specific language needs and to assess what type of assignment is appropriate for their ability levels.

Skills Summary

Mathematics

Classification

Literacy Skill

Drawing conclusions and making inferences

Differentiation Strategy

Tiered assignments
(See page 46 for more information.)

Classroom Management Tip

To keep the sets of cards separated, label each set with a symbol or differentiate by using colored cards.

Learning Standards

- ▶ Students understand that one way to make sense of something is to think about how it is like something more familiar.
- ▶ Students draw conclusions and make inferences based on explicit and implicit information in texts.

Stickers and Attributes *(cont.)*



Preparation

1. Select several different sets of stickers related to the same theme. Subsequent sets should have pictures with more details and complexity. For example, use pictures with ocean themes, such as seashells, sea animals, and sea plants.
2. Make a set of sticker cards by placing a different sticker on an index card. Repeat this process until you have a set of 10 cards.

Whole-Class Activity


1. Groups of students will divide sets of sticker cards into two, three, or four categories. Tell your students to examine their sticker cards and look for details. Then, they will categorize cards according to the attributes of the stickers. Model this activity for your students by showing them how to place a few of the stickers into different categories. For example, you can put them in categories according to color or size of the stickers.
2. Distribute activity sheets to students according to their ability levels. The above-grade-level students should receive the *Sticker Categories* triangle page (page 59). The on-grade-level students should receive the *Sticker Categories* square page (page 60). The below-grade-level students should receive the *Sticker Categories* circle page (page 61).
3. Meet with your English language learners to model this activity in a small-group setting. Then, either let your English language learners choose which activity sheets to complete, or assign them the activity sheets that match their ability levels.
4. When students have finished their activity sheets, have them find partners and compare their work. Remind students that sometimes two students see different categories, so there might not be one right answer to the questions. Provide enough time for your students to defend the reasons for their different categories with their partners.

Assessment

1. If time permits, have your students share their reasoning for their categories one-on-one with you.
2. Base your evaluations on whether or not students' reasons support their answers and if their answers show a variety of ways to categorize, demonstrate creativity in categorizing, and show an understanding of the assignment.

Leveled Questions Overview *(cont.)*

Steps for Using Leveled Questions to Differentiate

1. Start with the whole class topic. (on-grade-level question)
K–2 example: Describe water when it is a liquid and a solid.
3–5 example: In what forms does water exist in the air?
Secondary example: How do ocean currents and wind affect the movement of sailboats?
2. Open up the question. (above-grade-level question)
K–2 example: Describe water when it is a solid and a liquid. The third state of water is gas. What do you think that looks like?
3–5 example: Water exists in the air in different forms. Describe how this water changes from one form to another.
Secondary example: Why is it critical for anyone dealing with wind or the ocean to understand the Coriolis effect?
3. Narrow down the question. (below-grade-level question)
K–2 example: Tell what water is like as a drink (liquid). Tell what water is like as an ice cube (solid).
3–5 example: Water is in the air in different forms. Rain is one example. What is another example?
Secondary example: How do wind and currents move boats across the water?
4. Add context to the language. (English language learners question)
K–2 example: Describe water when you leave a glass of it on the table (liquid). Describe water in your freezer (solid).
3–5 example: Water is in the air. How can we see water in the air?
Secondary example: In the ocean, wind and ocean currents make boats  move. Tell how.

Multiple Intelligences Overview *(cont.)*

Multiple Intelligences Product Grid

This product grid categorizes different products under separate headings according to research from Howard Gardner's multiple-intelligences theory. Many are listed in more than one column and would look different according to which approach is taken. These groupings appeal to student interests and strengths. This increases their involvement and the quality of the final product and makes it easier to determine that students have completed tasks that are measurable and demonstrable.

Verbal/Linguistic	Logical/Mathematical	Visual/Spatial	Bodily/Kinesthetic	Rhythmic/Musical	Interpersonal	Intrapersonal	Naturalist
Advertisement Annotated bibliography Bulletin board Code Comic strip Debate Demonstration Diary Editorial essay Fairy tale Family tree Fiction Interview Jingle Joke book Journal Lesson Letter Letter to the editor Newspaper article Nonfiction Oral defense Oral report Pamphlet Petition Play Poem Press conference Radio program Riddle Science fiction Skit Stegan Soliloquy Story telling TV program Write a new law	Advertisement Annotated bibliography Chart Code Collage Collection Computer program Crossword puzzle Database Debate Demonstration Detailed illustration Edibles Experiment Fact file Family tree Game Graph Hidden picture Labeled diagram Large scale drawing Lesson Map with legend Mazes Mobile Model Petition Play Prototype Puzzle Recipe Riddle Survey Time line Transparencies Venn diagram Working hypothesis Write a new law	Animated movie Art gallery Bulletin board Bumper sticker Cartoon Chart Clay sculpture Collage Costumes Demonstration Diorama Display Etching Film Filmslip Flipbook Game Graph Hidden picture Illustrated story Maze Mobile Model Mosaic Mural Painting Paper mache Photo essay Picture book for children Pictures Play Political cartoon Pop-up book Prototype Rebus story Slide show Story cube Transparencies Travel brochure TV program Web page	Calligraphy Collage Costumes Dance Demonstration Diorama Etching Experiment Film Flip book Food Hidden picture Mosaic Mural Musical Musical instruments Needlework Painting Pantomime Paper mache Plaster of Paris model Play Poem Press conference Puppet Radio program Role play Transparencies TV program	Audio-video tape Choral reading Fairy tale Film Instrumental Jukebox Musical Poem Rap Riddle Role playing Song Sound	Advertisement Animated movie Bulletin board Chart Choral reading Comic strip Debate Demonstration Editorial essay Fairy tale Film game Interview Journal Lesson Mazes Museum exhibit Pamphlet Petition Play Press conference Role playing TV program Write a new law	Bulletin board Chart Collection Comic strip Diary Editorial essay Fairy tale Family tree Journal Learning center Poem Riddle Maze collage Time line	Artifact collecting Diorama Field study Field trip Fossil collecting Insect collecting Leaf collecting Original song Photo essay Rock collection Scientific drawing Spelunking trip Time line

Reprinted by permission from Dr. T. Roger Taylor, Curriculum Design Online, <http://www.roberttaylor.com/>. Copyright © 2002 by Dr. T. Roger Taylor.

Menu of Options Overview *(cont.)*

Steps for Using Menu of Options to Differentiate

1. Pick the grade level objective you will be covering.
2. Decide upon the specific skills, concepts, or generalizations that need to be learned.
3. Use the *Menu of Options Template* (options.doc) to write student project ideas and the corresponding points for each of the projects. Projects that demand more time should be valued with higher points. Projects that take little time should be given lower point values. All projects should connect the objective of the lesson with the specific skills, concepts, or generalizations.
4. Give your students copies of your menu of options. Read over the project choices with students and answer any questions.
5. Give students 10 minutes to talk to their classmates and start getting ideas for their projects.
 - ▶ **On and Above Grade Level**—Help them narrow down their options.
 - ▶ **Below Grade Level**—Have these students work on a few of the projects in small groups.
 - ▶ **English Language Learners**—Meet with these learners to help them pick their projects and to adjust the projects to better meet their needs. It might be helpful to have these students verbally explain their work instead of writing it all down.
6. Distribute copies of the *Menu of Options Planning Chart* (page 178) to students. Make an overhead transparency of this page and display it. Explain to students how to fill it out along with ways to manage their time. For homework, have students decide on the projects they will complete and have them turn in their planning charts the following day.
7. Over the next couple of weeks, allow students time in class every few days to work on their projects. Be sure to tell them the day before you are going to give them class time, so they can bring their projects from home. Most of the time in class should be spent on background research.
8. At the end of the time period, collect students' projects and evaluate them according to their individual planning charts.

Interest Centers Overview *(cont.)*

Steps for Using Stations/Interest Centers to Differentiate

1. Pick the grade level objective you will be covering.
2. Decide upon the specific skills, concepts, or generalizations that need to be learned.
3. Begin planning your unique interest centers and assignments using the blank *Interest Center Planning Guide* (planning.doc). The centers and assignments should connect the objective of the lesson with the specific skills, concepts, or generalizations. Write the materials and tasks for the centers on this planner. These centers include a story center, design center, performance center, reflection center, test center, and reasoning center.
4. Set up centers in different parts of the room and place a copy of each task sheet at the appropriate center.
5. Present these center activities to students by reading them aloud. Have students elect a person at each interest center to direct students in completing their tasks. This might include reading the directions, being the go-to person for more instructions, and enlisting the teacher for help if problems cannot be solved.
6. Next, allow your students to go to the appropriate stations of their choosing. Students will be grouped in these centers homogeneously according to their interests, but heterogeneously according to ability levels. As students desire, let them work in these groups to complete the projects. Some students might enjoy doing their own work, especially those who choose the reflection center.
 - ▶ **English Language Learners**—These learners can work with the elected person at their stations to gain a better understanding of each activity.
7. If time permits, allow students in each interest center to present their final products to the class. When students have the chance to present things in which they are interested, it can boost their confidence and give others a chance to make friends based on common interests.

Interest Center Planning Guide

Unit: _____

Center 1—Story Center

Materials: _____

Task(s): _____

Center 2—Design Center

Materials: _____

Task(s): _____

Center 3—Performance Center

Materials: _____

Task(s): _____

Interest Center Planning Guide

Unit: _____

Center 4—Reflection Center

Materials: _____

Task(s): _____

Center 5—Test Center

Materials: _____

Task(s): _____

Center 6—Reasoning Center

Materials: _____

Task(s): _____

Student Reproducibles

Menu of Options

Name _____

Living Things Menu of Options (cont.)

Zoo Keeper (Worth 10 points)

1. You are a zoo keeper. You need to make a home for the monkeys.
2. Draw the monkeys' home on a piece of paper. Be sure to include plants that monkeys would like.
3. Draw the food you will feed to the monkeys.

Water and Land (Worth 10 points)

1. Some plants and animals live in the water. Others live in a rainforest.
2. On one piece of paper, draw an ocean or pond. Draw the plants and animals that live in the ocean or pond.
3. On another piece of paper, draw a rainforest. Draw the plants and animals that live in the rainforest.

Parts of a Plant (Worth 5 points)

1. Draw a flower on a piece of paper.
2. Label the parts of the flower using these words: *roots, stem, leaves, petals*.

Animal Memory Game (Worth 5 points)

1. Cut out pictures of different kinds of animals.
2. Glue the pictures to index cards.
3. On blank index cards, write the names of each animal. Write one name per card.
4. Mix the cards. Place the cards on the table face down.
5. Play a memory matching game with a partner. Try to match the animal picture with its name.

Name _____

Menu of Options

Directions: Choose activities from the list to show what you have learned. Each activity has a number value. You need to earn at least 25 points total.

Projects are due: _____

Project Choices

Worth 20 points each <ul style="list-style-type: none">••
Worth 15 points each <ul style="list-style-type: none">••
Worth 10 points each <ul style="list-style-type: none">••
Worth 5 points each <ul style="list-style-type: none">••



Forces and Motion

Differentiation Strategy



Menu of Options

Standards

- Students will know that when a force is applied to an object, the object either speeds up, slows down, or goes in a different direction.
- TESOL: Students will use English to obtain, process, construct, and provide subject matter information in spoken and written form.

Materials

- lesson resources (pages 126–129)
- video clips of Newton's laws of motion and astronaut on the moon (See page 167.)
- *menu of options materials*: stopwatch, meterstick, toy cars and ramps, Internet, printer, glue, poster board, digital camera, slide show software, art supplies, marbles, index cards, bouncy ball, paper clip

Procedures

- 1 Begin the lesson by showing video clips or photos of Newton's three laws of motion in action. The first time you show the clips, simply push play without any explanation or introduction. You might need to mute the sound if the video clip explains the forces of motion. For the second showing, ask students to pay careful attention. Then, pause before each clip to tell students, "This clip shows Newton's first (second, third) law of motion." Do not explain the laws at this point.
- 2 Divide the class into three heterogeneous groups. Randomly assign each group one of the laws of motion. Based only on what they remember from the video clips, have students try to guess the definition of their assigned law of motion. Have them write their guesses on notebook paper.
- 3 Before collecting the guesses, show the video clips a third time. Remind students to pay careful attention to the video clip that shows their group's law in action. Then, allow students to revise their guesses, as needed.
- 4 Read each guess aloud as you play the corresponding video clip. As a whole class, discuss the video clips and the guesses.
- 5 Display the correct definitions of Newton's laws of motion, explain them, and provide examples.

Newton's First Law—An object at rest tends to stay at rest, and an object in motion tends to stay in motion unless a force acts upon that object. This is also called *inertia*.

Newton's Second Law—The acceleration of an object depends on the mass of an object and amount of force applied. The force of an object is equal to its mass times its acceleration.

Newton's Third Law—Every action has an equal and opposite reaction.

Forces and Motion



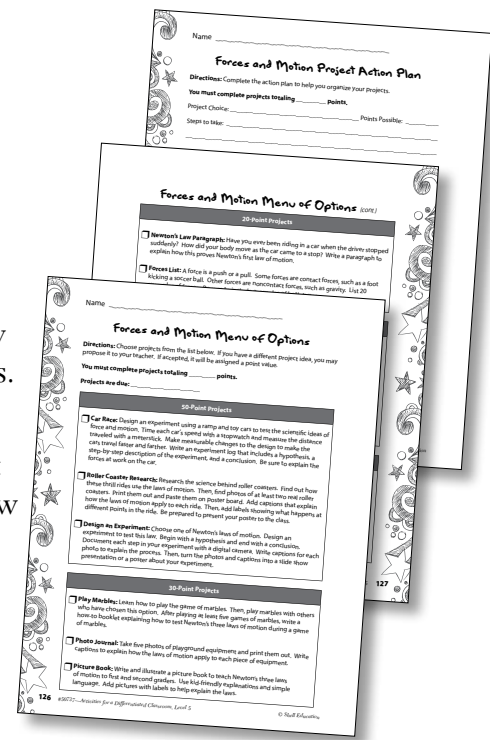
6 Distribute copies of the *Forces and Motion Menu of Options* activity sheets (pages 126–127) to students. Explain to students that they will choose activities from the menu to learn more about forces and motion. Decide ahead of time how many points students need to complete from the menu, and set a due date for the projects. Read each activity aloud and answer any questions that students may have.

7 Distribute the *Forces and Motion Project Action Plan* activity sheet (page 128) to students to help them plan their activities.

★ English Language Support—Use this time to meet with these students to make sure that they choose projects at their readiness levels. Reread the activity directions and show students sample projects so they can see what is expected. If necessary, modify the activities to meet individual needs. Help students complete their action plans.

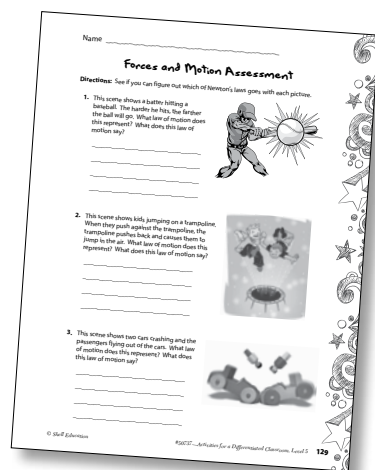
8 Provide students with any needed materials to help them complete the activities. Allow students time to complete their menu of options projects.

9 If students finish early, they may complete the Anchor Activity.



Assessment

To assess what students have learned, distribute copies of *Forces and Motion Assessment* activity sheet (page 129).



Anchor Activity

Have students create their own videos or skits that show all three of Newton's laws. They can tape the performances or perform them live for the class.

Name _____

Forces and Motion Menu of Options

Directions: Choose projects from the list below. If you have a different project idea, you may propose it to your teacher. If accepted, it will be assigned a point value.

You must complete projects totaling _____ points.

Projects are due: _____

50-Point Projects

- Car Race:** Design an experiment using a ramp and toy cars to test the scientific ideas of force and motion. Time each car's speed with a stopwatch and measure the distance traveled with a meterstick. Make measurable changes to the design to make the cars travel faster and farther. Write an experiment log that includes a hypothesis, a step-by-step description of the experiment, and a conclusion. Be sure to explain the forces at work on the car.
- Roller Coaster Research:** Research the science behind roller coasters. Find out how these thrill rides use the laws of motion. Then, find photos of at least two real roller coasters. Print them out and paste them on poster board. Add captions that explain how the laws of motion apply to each ride. Then, add labels showing what happens at different points in the ride. Be prepared to present your poster to the class.
- Design an Experiment:** Choose one of Newton's laws of motion. Design an experiment to test this law. Begin with a hypothesis and end with a conclusion. Document each step in your experiment with a digital camera. Write captions for each photo to explain the process. Then, turn the photos and captions into a slide show presentation or a poster about your experiment.

30-Point Projects

- Play Marbles:** Learn how to play the game of marbles. Then, play marbles with others who have chosen this option. After playing at least five games of marbles, write a how-to booklet explaining how to test Newton's three laws of motion during a game of marbles.
- Photo Journal:** Take five photos of playground equipment and print them out. Write captions to explain how the laws of motion apply to each piece of equipment.
- Picture Book:** Write and illustrate a picture book to teach Newton's three laws of motion to first and second graders. Use kid-friendly explanations and simple language. Add pictures with labels to help explain the laws.

Forces and Motion Menu of Options *(cont.)*

20-Point Projects

- Newton's Law Paragraph:** Have you ever been riding in a car when the driver stopped suddenly? How did your body move as the car came to a stop? Write a paragraph to explain how this proves Newton's first law of motion.
- Forces List:** A force is a push or a pull. Some forces are contact forces, such as a foot kicking a soccer ball. Other forces are noncontact forces, such as gravity. List 20 examples of forces. Be sure to include examples of both types.

10-Point Projects

- Forces Vocabulary:** The terms *motion*, *force*, *inertia*, and *reaction* are key to understanding forces and motion. For each of the vocabulary words, divide an index card into four quadrants. In one quadrant, write a definition. In the second quadrant, write the characteristics of the term. In the third quadrant, list examples. In the fourth quadrant, list nonexamples.
- Gravity Comic Strip:** If you drop a marble, a bouncy ball, and a paper clip from the top of a slide, which will land first? Why? Conduct an experiment with these items. Draw a comic strip to explain the answer.
- Watch a Video:** Watch a video clip online of an astronaut walking on the moon. Write a paragraph describing what you see in scientific terms.

Student-Proposed Projects

- _____

- _____

Name _____

Forces and Motion Project Action Plan

Directions: Complete the action plan to help you organize your projects.

You must complete projects totaling _____ points.

Project Choice: _____ Points Possible: _____

Steps to take: _____

Project Choice: _____ Points Possible: _____

Steps to take: _____

Project Choice: _____ Points Possible: _____

Steps to take: _____

Project Choice: _____ Points Possible: _____

Steps to take: _____

Project Choice: _____ Points Possible: _____

Steps to take: _____

Add the points from each project choice above. Total points possible: _____

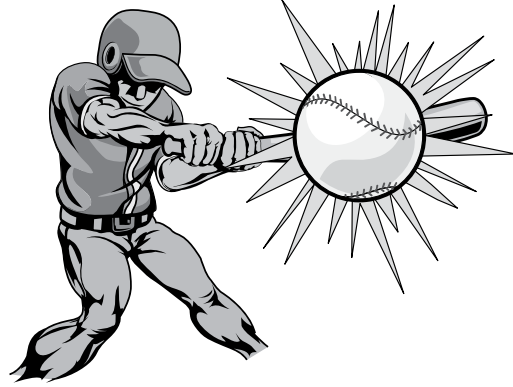
Projects are due: _____

Name _____

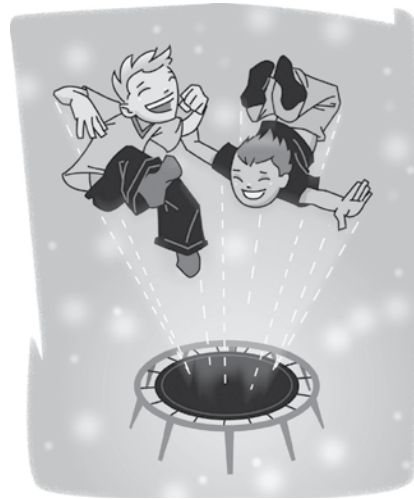
Forces and Motion Assessment

Directions: See if you can figure out which of Newton's laws goes with each picture.

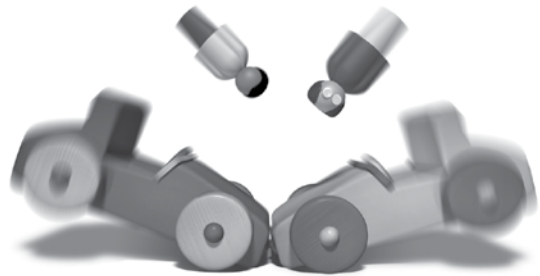
1. This scene shows a batter hitting a baseball. The harder he hits, the farther the ball will go. What law of motion does this represent? What does this law of motion say?



2. This scene shows kids jumping on a trampoline. When they push against the trampoline, the trampoline pushes back and causes them to jump in the air. What law of motion does this represent? What does this law of motion say?



3. This scene shows two cars crashing and the passengers flying out of the cars. What law of motion does this represent? What does this law of motion say?





Food Chains

Differentiation Strategy



Choices Board

Standards

- Students will know the organization of simple food chains and food webs.
- TESOL: Students will use English to obtain, process, construct, and provide subject matter information in spoken and written form.

Materials

- lesson resources (pages 108–111)
- pictures of six parts of a food chain (fox.pdf, grass.pdf, hawk.pdf, rabbit.pdf, snake.pdf, sun.pdf)
- glue
- index cards
- books and websites about ecosystems (See page 167.)
- pocket chart or bulletin board
- computer software
- art supplies
- construction paper

Procedures

Preparation Note: Print out photos or illustrations of the parts of a familiar food chain. Glue the pictures onto index cards. You will need a sun, a plant (grass), an herbivore (rabbit), an omnivore (fox), a larger carnivore (snake), and the top predator with no natural enemies (hawk). Make two sets of these pictures.

- 1 Display one set of the food-chain pictures, in no particular order, so that the whole class can see them. Then, distribute the other six pictures to six students. *Hint:* This is a great way to get below-grade-level learners and English language learners involved in a whole-class activity. Do not mention food chains or food webs yet. Ask the six students to organize themselves into an order that makes sense to them. When they are ready, have the volunteers stand in order and hold their pictures for everyone to see. Ask the rest of the class to decide if they agree or disagree with the chosen order. Have students explain their opinions and offer alternate suggestions.
- 2 If students guess that this lesson is related to food chains, that is a great start. You can assess students' background knowledge of the topic during the follow-up discussion. If students do not bring up the idea of food chains, introduce the concept at this point in the lesson. Explain how food chains work within ecosystems.

★ **English Language Support**—Use the pictures as visual aids to explain the parts of the food chain. Point out that energy comes from the sun, so all food chains start with the sun. Explain that plants use the sun's energy to make their own food. You might wish to introduce vocabulary such as *predator*, *prey*, *herbivore*, *carnivore*, and *omnivore*.
- 3 Divide the class into seven heterogeneous groups. Give each group one of the index cards labeled with the following ecosystems—*desert*, *prairie*, *pond*, *ocean*, *woodland*, *arctic*, and *rainforest*. Have each group brainstorm animals that live in the ecosystem named on their card. Provide books and websites about ecosystems for students to use as quick references. Have students create simple food chains to share with the class. The food chains must include the ecosystem name and at least one animal for each category—primary producer, primary consumer, secondary consumer, tertiary consumer, quaternary consumer, and top predator.

Food Chains



- 4 If time allows, have each group present its food chain to the class. If time is limited, have groups display their food chains on desks to create a gallery. The whole class can take a gallery walk to see their classmates' projects.
- 5 To learn more about food chains, students will complete two additional activities. Assign students a shape based on their readiness levels.
- 6 Cut apart the *Who Eats Whom? Choices Cards* activity sheets (pages 109–111) and display the cards in a pocket chart or on a bulletin board. Read the activities aloud and explain them. Answer students' questions.
- 7 Distribute copies of the *Who Eats Whom? Choices Board* activity sheet (page 108). As you pass out the papers, quickly sketch the appropriate shape at the top of each student's sheet. Explain that square (on-grade-level) students will choose a square activity to complete independently and a triangle activity to complete with a friend in their group. Circle (below-grade-level) students will choose a circle activity to complete independently and a square activity to complete with a friend in their group. Triangle (above-grade-level) students will choose two triangle activities to complete. They will complete one independently and one with a friend in their group. Provide students with any needed materials to help them complete the activities.
- 8 If students finish early, they may complete the Anchor Activity.

Assessment

Evaluate student's activities to be sure that they are working at the appropriate levels and understand the concepts that have been taught.

Activity Levels
▲ Above Grade Level
■ On Grade Level
● Below Grade Level

Anchor Activity



Have students design a rubric for grading the choices board projects. Provide sample rubrics and a list of your expectations for them to use as references. Another option is to have students design a quiz to assess students' understanding of the lesson.

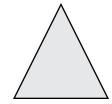
Name _____

Who Eats Whom? Choices Board

Directions: Choose two activities from the choices board that match the shape assigned to you by your teacher.





<p>Create a board game about producers, consumers, and decomposers. Make sure the action of the game shows the relationships among the three parts.</p> <p style="text-align: right;">□</p>	<p>Research a food chain in the mangrove ecosystem. Discover ideas for preserving the mangrove ecosystems. Design a poster to report your findings.</p> <p style="text-align: right;">△</p>	<p>Draw and label a food chain that includes you. Your food chain must have at least five links.</p> <p style="text-align: right;">○</p>
<p>Act out a predator/prey relationship in front of the class. Explain how the animals fit into the food chain in their environment.</p> <p style="text-align: right;">○</p>	<p>Create a graphic organizer for a food chain in your environment. Make sure your graphic organizer is neat and colorful.</p> <p style="text-align: right;">□</p>	<p>Research the defining traits of herbivores, omnivores, and carnivores. Combine the traits in an original way to invent a new species of herbivore, omnivore, and carnivore. Create fact cards to introduce the new animals.</p> <p style="text-align: right;">△</p>
<p>Research two or three food chains that interconnect to form a food web. Use computer software or art supplies to draw and label this food web.</p> <p style="text-align: right;">△</p>	<p>Draw an outline of each organism in a food chain on a different color sheet of construction paper. Make the first organism the smallest and the top predator the largest.</p> <p style="text-align: right;">○</p>	<p>What happens when one link in a food chain weakens or disappears? Find an example of a food chain that has experienced this. Write a letter from the perspective of the organism that disappeared.</p> <p style="text-align: right;">□</p>
<p>Add your own idea and get your teacher's approval.</p> <p style="text-align: right;">□</p>	<p>Add your own idea and get your teacher's approval.</p> <p style="text-align: right;">△</p>	<p>Add your own idea and get your teacher's approval.</p> <p style="text-align: right;">○</p>

Name _____



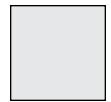
Who Eats Whom? Choices Cards

Directions: Choose two activities to complete.

<p>Research a food chain in the mangrove ecosystem.</p> <p>Discover ideas for preserving the mangrove ecosystems.</p> <p>Design a poster to report your findings.</p> 	<p>Research the defining traits of herbivores, omnivores, and carnivores.</p> <p>Combine the traits in an original way to invent a new species of herbivore, omnivore, and carnivore.</p> <p>Create fact cards to introduce the new animals.</p> 
<p>Research two or three food chains that interconnect to form a food web.</p> <p>Use computer software or art supplies to draw and label this food web.</p> 	<p>Add your own idea and get your teacher's approval.</p> 



Name _____



Who Eats Whom? Choices Cards

Directions: Choose two activities to complete.

Create a board game about producers, consumers, and decomposers.

Make sure the action of the game shows the relationships among the three parts.



Create a graphic organizer for a food chain in your environment.

Make sure your graphic organizer is neat and colorful.



What happens when one link in a food chain weakens or disappears?

Find an example of a food chain that has experienced this.

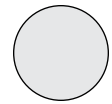
Write a letter from the perspective of the organism that disappeared.



Add your own idea and get your teacher's approval.






Name _____



Who Eats Whom? Choices Cards

Directions: Choose two activities to complete.

<p>Draw and label a food chain that includes you. Your food chain must have at least five links.</p> 	<p>Draw an outline of each organism in a food chain on a different color sheet of construction paper. Make the first organism the smallest and the top predator the largest.</p> 
<p>Act out a predator/prey relationship in front of the class. Explain how the animals fit into the food chain in their environment.</p> 	<p>Add your own idea and get your teacher's approval.</p> 