

Special Ed

# ECOSYSTEMS

## BIOMES & FOOD CHAINS



ALSO INCLUDES GOOGLE SLIDES

Special Needs for Special Kids



For students who:

- are emerging or non-readers
- take alternate assessments
- are in special education
- short-attention span
- lack pre-requisite skills
- benefit from the use of pictures for support
- middle/high school

# Ecology Unit

By  
Christa Joy  
Special Needs for Special Kids



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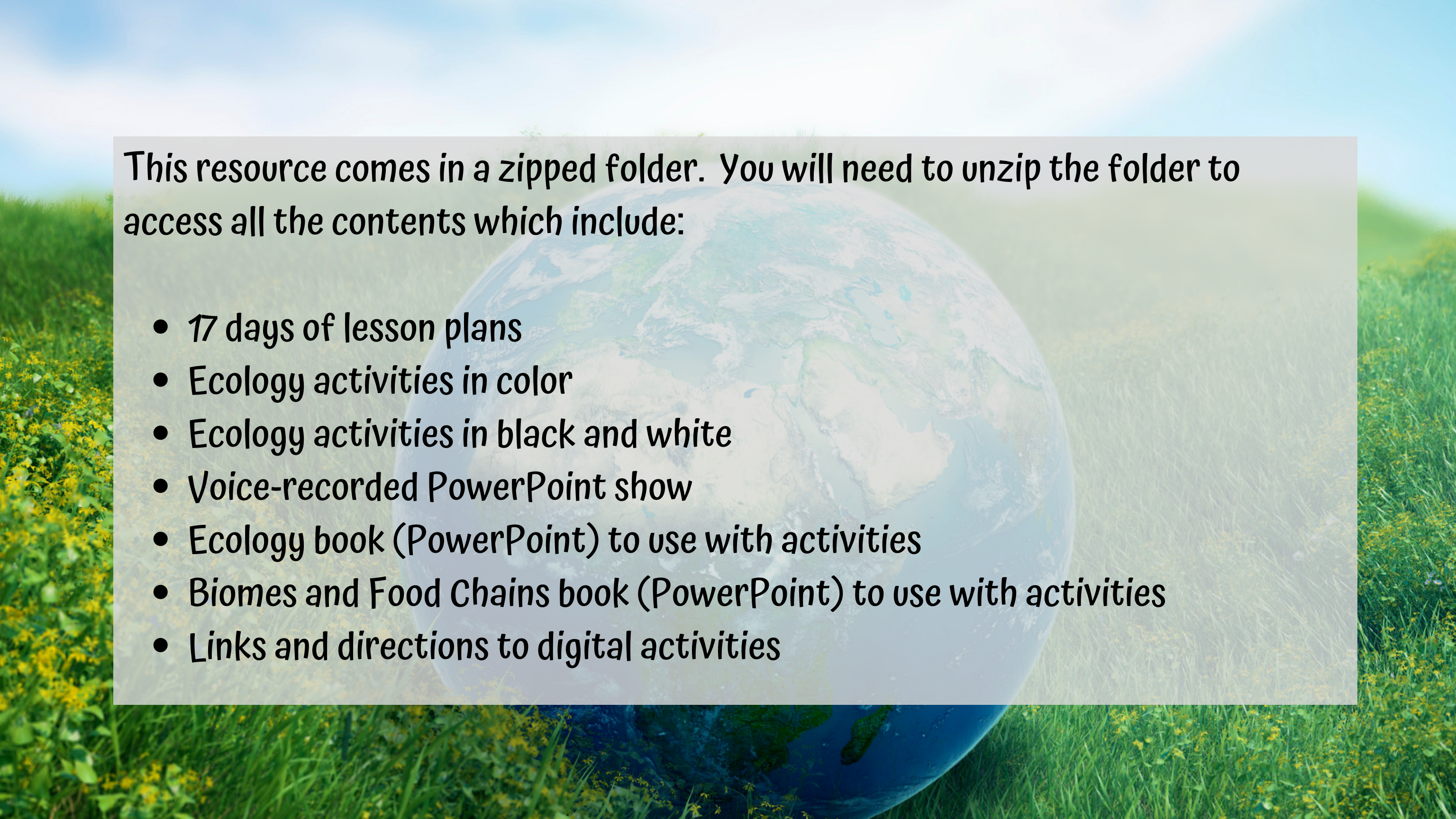
Also included in this resource as separate files:

- Lesson plans
- Links and directions to digital activities
- PowerPoints **(these are the books in the lesson plans)**
- Voice recorded PowerPoint
- Activities in black and white

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This unit contains almost **200 pages** of material plus **70 google slides**. I have included a detailed lesson plan to help you make the most of everything in this unit including how to add some group activities.

It comes in 2 separate files. One in color and one in black and white.



**This resource comes in a zipped folder. You will need to unzip the folder to access all the contents which include:**

- **17 days of lesson plans**
- **Ecology activities in color**
- **Ecology activities in black and white**
- **Voice-recorded PowerPoint show**
- **Ecology book (PowerPoint) to use with activities**
- **Biomes and Food Chains book (PowerPoint) to use with activities**
- **Links and directions to digital activities**

## Day 2

Activity	Notes	Materials
Read or listen to a recording of the <b>Ecology</b> book (10 minutes)	<ul style="list-style-type: none"><li>• Read through the story, asking lots of questions<ul style="list-style-type: none"><li>◦ Therefore, it usually takes me a little longer to read each day. I can ask more questions as they get more familiar with the material.</li><li>◦ You <b>don't want to ask so many questions</b> you lose the flow of the story, but enough to make sure your students are truly engaged</li></ul></li><li>• Continue to make connections between book and vocabulary board</li></ul>	<ul style="list-style-type: none"><li>• book</li><li>• Vocabulary board</li></ul>
Vocabulary cards <b>I Spy Game</b> (10 minutes)	<ul style="list-style-type: none"><li>• I play this game, or variations of it the first few days<ul style="list-style-type: none"><li>◦ Determine how many cards your students can handle in front of them. This can vary, some students may be able to have all the cards, so may only be able to handle a field of 3-5</li></ul></li><li>• Since this is the first time playing this game, I make it easy. Hold up a card, and have students find the matching one and hold it up</li><li>• Discuss relevant points on the card<ul style="list-style-type: none"><li>◦ You can also play this game in this manner having them find the symbol on their vocabulary board</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Vocabulary cards (student set and teacher set)</li><li>• Vocabulary board</li></ul>
Circle map review (5 minutes)	<ul style="list-style-type: none"><li>• Review the worksheet completed yesterday</li></ul>	<ul style="list-style-type: none"><li>• Worksheet completed yesterday</li></ul>
Labeling Activity (10 minutes)	<ul style="list-style-type: none"><li>• Choose the best version depending on the learning level of your students (see worksheet directions for more details)</li><li>• Add color coding if needed</li><li>• Students complete the worksheet</li><li>• Make connections to the book as necessary</li></ul>	<ul style="list-style-type: none"><li>• Worksheet</li><li>• Scissors</li><li>• Glue</li></ul>
Sharing (10 minutes)	<ul style="list-style-type: none"><li>• Each student shares their finished worksheet with the group using the communication method of their choice</li></ul>	<ul style="list-style-type: none"><li>• Completed worksheets</li><li>• Communication devices</li></ul>

# Lesson plan

This unit has a detailed lesson plan with:

- suggestions
- overview
- daily step-by-step guide



This unit comes with a vocabulary board.

Vocabulary boards are great for ALL students to assist with participation and engagement in group discussions.

Tips on how to use in the unit!!

Ecology and the idea that all things live in a balance within the world around them, has been studied for a very long time.



There are 2 books (one on Ecology and one on Biomes and Food Chains) with simple text and engaging photos.

Within each biome, there are specific ecosystems. Within these ecosystems, plants and animals learn to survive by finding different ways to find food and energy.



It comes in a PowerPoint version as well as a voice-recorded PowerPoint (so you don't have to print it out.) There is also a movie version you can use in google slides.



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## ecology

Study of the relationship between living and non-living things and their environment.



## ecologists

Scientists who study how things are related to their environment.



## terrestrial

Biomes covered in land: desert, forest, grassland, and tundra.



## interdependence

When the survival of one organism is dependent on another.



# Vocabulary

## biotic

Living things in the environment.



## abiotic

Non-living things in the environment.



## generalists

Organisms that eat a variety of foods.



## specialists

Organisms that eat only one type of food and are at high risk for extinction.



There are 30 vocabulary cards that come in color and black and white.

Included are suggestions for group activities to do with these each day.

## individual



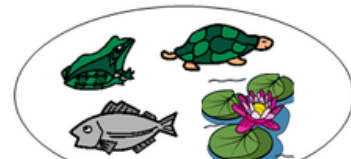
## species



## population



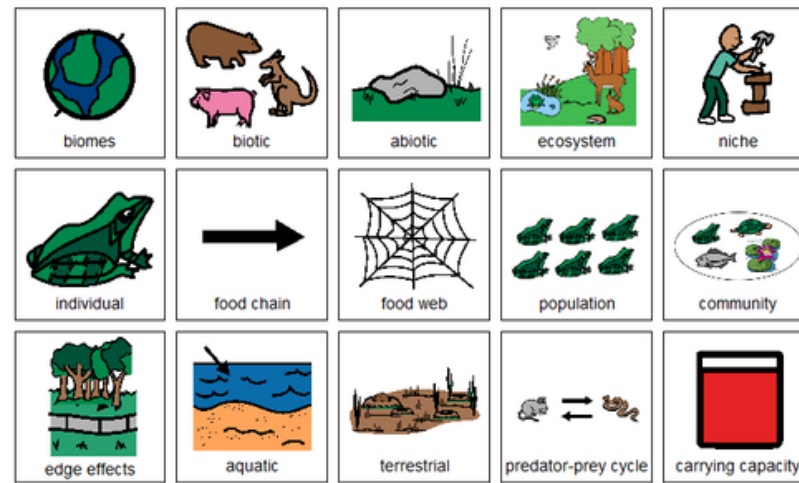
## community





Errorless version

Cut apart pictures and place in circle map about ecology.



Cut apart pictures and place in circle map **ONLY IF** they relate to ecology.

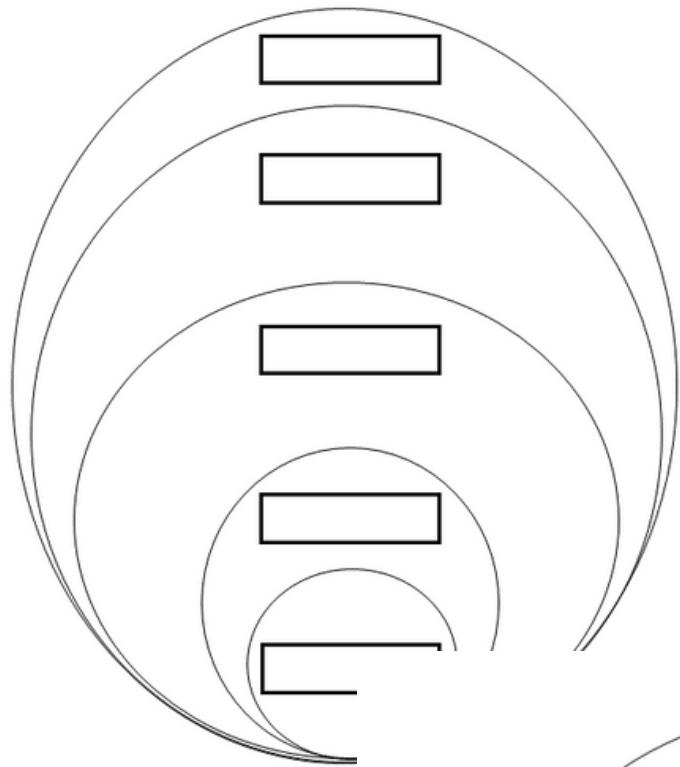


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There are 3 circle maps, one on ecology, one on food chains, and one on changes in the environment.

Circle maps are a great way for students to see the concept at a glance. There are 2 versions:

- One is errorless
- One has wrong answers mixed in students will have to set aside



Biosphere

Population

Individual

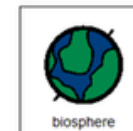
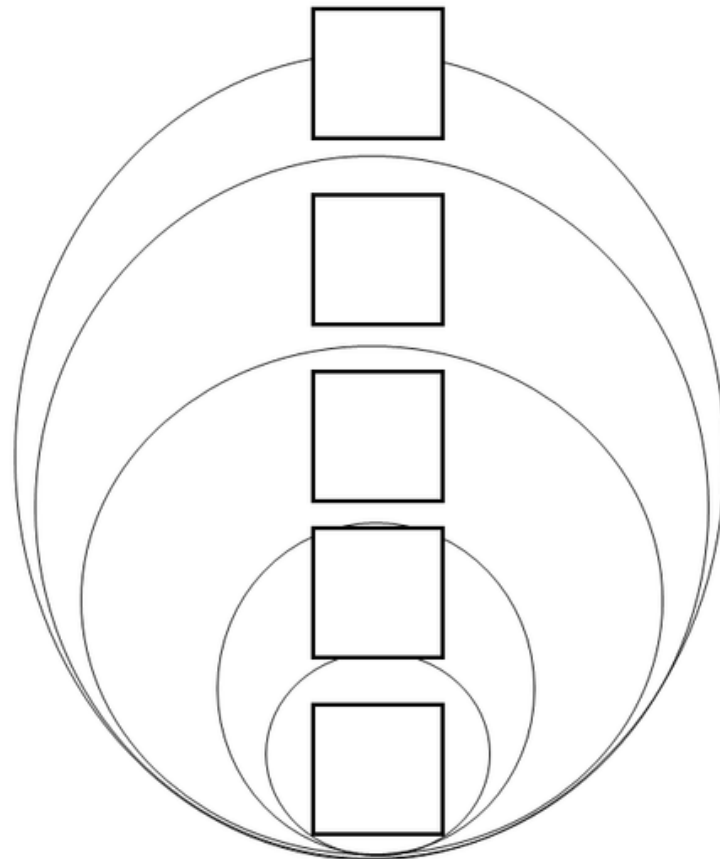
Ecosystem

Community



There is a labeling activity. It comes in 2 versions, one that has pictures for more support. Suggestions for differentiation and answer key included.

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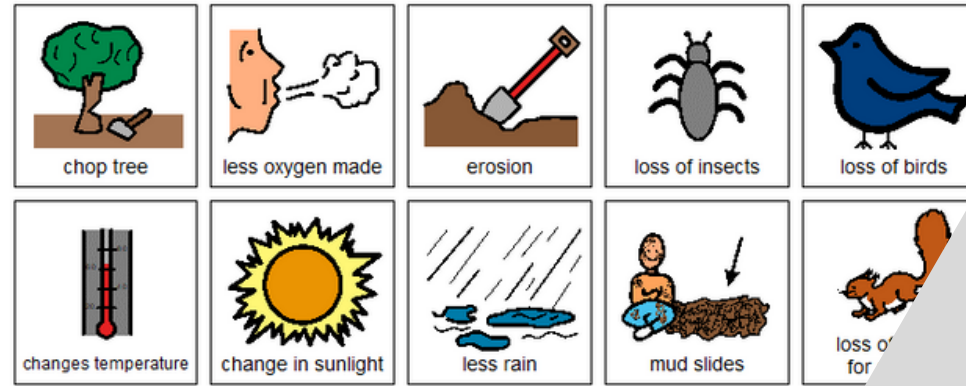
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# How did it change?

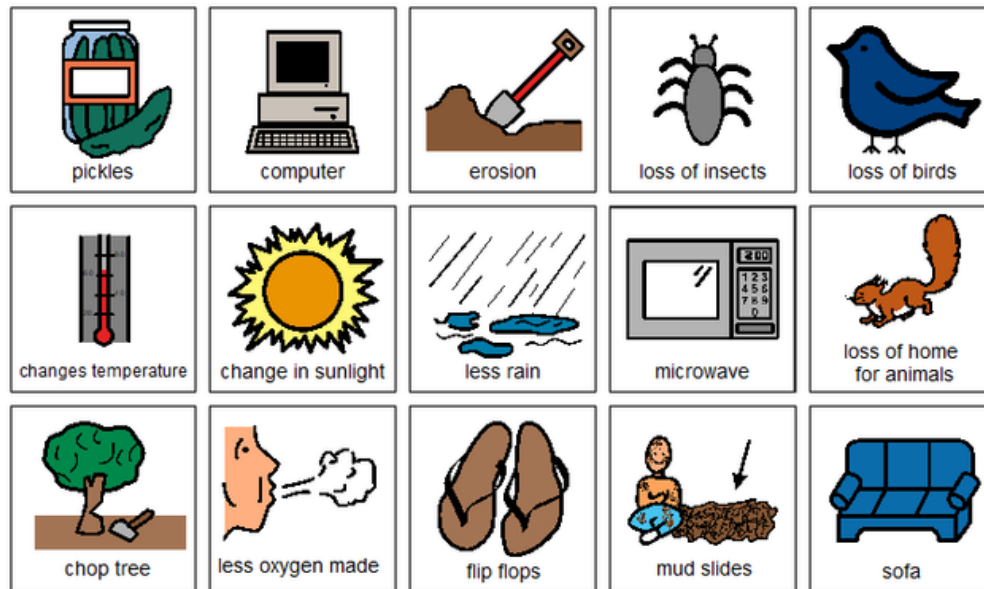


Place the following images on the previous page to show how people changed the forest.



errorless

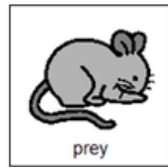
Place the following images on the previous page **ONLY IF** they show how people changed the forest.



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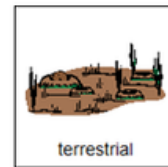
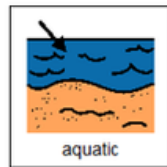
There are 3 activities where students look at 2 pictures and note how things have changed. It comes with an errorless version and a version with wrong answers mixed in.





mouse	squirrel	bear	cricket	killer whale
lion	tiger	antelope	wolf	bird
rabbit	crab	snake	rat	shark
raccoon	hawk	leopard	prawn	crocodile

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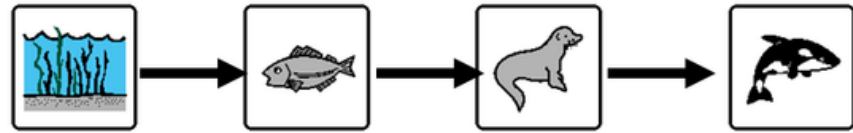


shark	coral	raccoon	bear
tiger	crab	gorilla	dolphin
kitten	squid	guinea pig	mouse
fish	horse	hedgehog	sea turtle

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There are 3 sorting activities that review facts from both books. They come with photos (color activities) and picture symbols. Suggestions for differentiation and answer key included.

#4

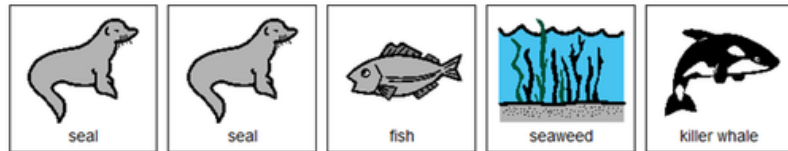


Killer whales feed on:

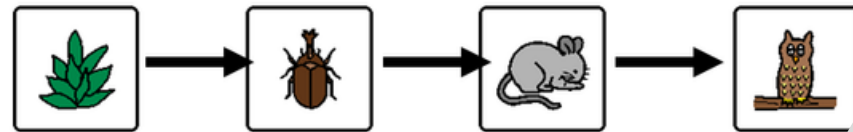
Fish eat:

These animals are prey:

The main predator of the seal is:



#5

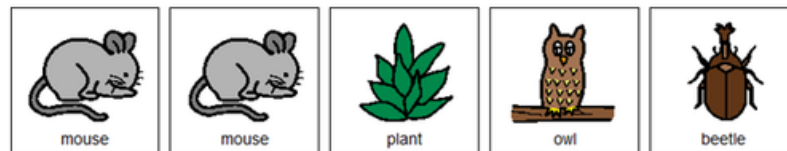


The main predator is the:

These animals are prey:




















The food for beetles is:

Beetles are food for the:






There are 5 food chains for students to look at and answer questions about. Suggestions for differentiation and answer key included.

# Ecology

 biome		 prey		 predator	
 consumer		 biome		 niche	
	 producer	 consumer	 predator	 biome	 niche
 predator	 biome		 prey	 producer	
 producer				 consumer	
 niche	 consumer				

Place the following images in the empty squares on the previous page, completing the sudoku puzzle.

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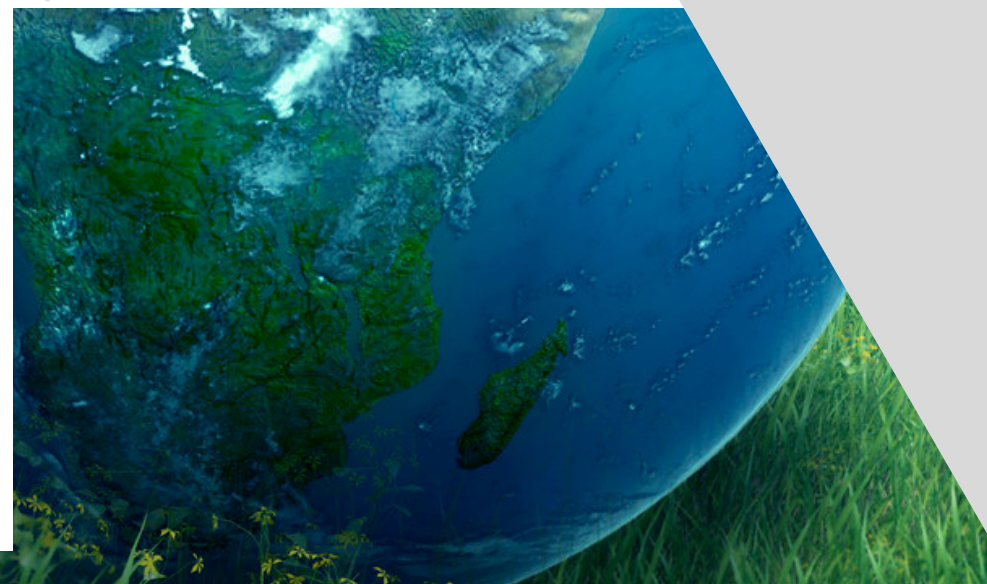
 producer	 producer	 producer	 consumer	 consumer	 prey
 prey	 prey	 prey	 predator	 predator	 predator
 niche	 niche	 niche	 biome	 biome	

# Ecology

J T J H A B E N P B Z K L D H Q J V G U  
 P W E S D V Q F O I J R I O F R V E L D  
 M J C P K Z B L P O Y D S A K I D C L R  
 M J O E G S F E U T T M T J E S U V A R  
 T M L C N R K C L I W E H U E Z A V A S  
 E D O I F U K R A C E C O S Y S T E M G  
 R Z G E F X M T T H X V P O A M T D S M  
 R O Y S C Q R N I O N H R Q H A L C M N  
 E F F A H V W L O M Z E O M V Y I A F R  
 S U B I O M E B N N S R D B M R A R J W  
 T X D P W X C L M I E B U O X L Q N H P  
 R C X R M A V T W V C I C C D R U I V J  
 I Z H E N N X V T O U V E Z W I A V I P  
 A K D Y N I C H E R B O R G T L T O G R  
 L Y Q B H U G J A E Y R N T F M I R Q E  
 A F C O N S U M E R L E V K M A C E B D  
 N B B O G U A W R G F L L J S K G V U A  
 W U F B N H R M R S C O M M U N I T Y T  
 W R L E E M P N N W H F Y T B C M L O O  
 A J N Y V X I I D K P G K Y M V D N N R

terrestrial      population      herbivore      comm  
 ecosystem      predator      omnivore      carn  
 consumer      species      producer      ao  
 ecology      niche      biotic      bio.  
 prey

There are Sudoku puzzles  
and a word search to  
practice the new  
vocabulary.



## Ecology

1. There is a  between living and non-living things and their environment.

2. An example of a biotic factor affecting the ecosystem is .

3.  is an example of an abiotic factor.

4. The niche of flowers is to provide pollen for .

5. Herbivores only eat .



a frog



plants



balance



soil



bees

## Biomes

1. There are  main biomes: aquatic and terrestrial.

2. The tundra is an example of a  biome.

3.  is an animal that would live in an aquatic biome.

4. The biome is the  most layer.

5. A camel would live in a  ecosystem.



outer



shark



terrestrial

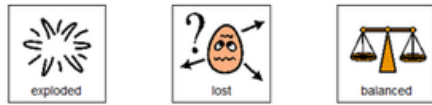


desert

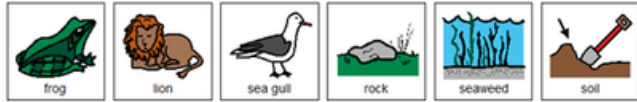
2

There are 4 fill-in-the-blank worksheets. These allow you to review and focus on smaller amounts of material and identify areas to review before the assessment.

1. Ecology is the study of how living things, non-living things, and the environment are:



2. Circle all those things that are biotic:



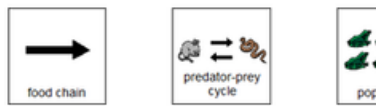
3. Producers use this for energy:



4. Carnivores eat:



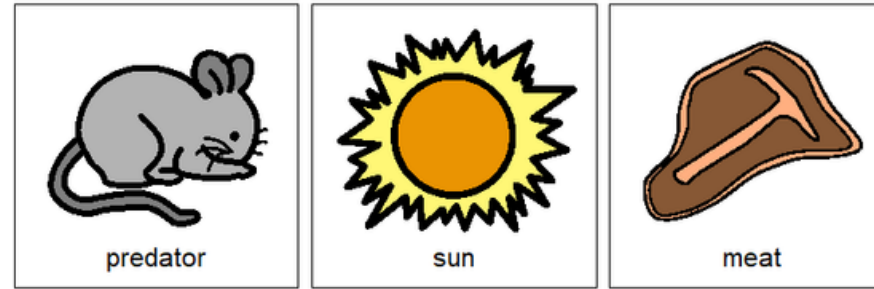
5. This is the natural cycle between predator keeps things in balance:



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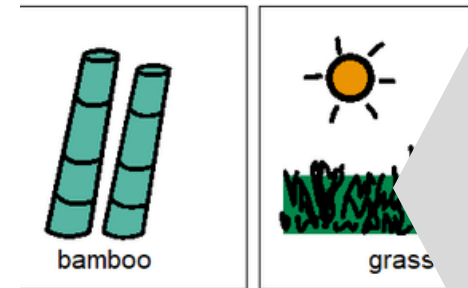
Print onto cardstock or mount on index cards. Cut pictures apart and show student answer choices for each question.

Q 3



Q 4

Version 3



1. Ecology is the study of how living things, non-living things, and the environment are:

- A. exploded
- B. lost
- C. balanced

2. Circle all those things that are biotic:

- A. frog
- B. lion
- C. sea gull
- D. rock
- E. seaweed
- F. soil

3. Producers use this for energy:

- A. prey
- B. sun
- C. meat

4. Carnivores eat:

- A. meat
- B. bamboo
- C. grass

5. This is the natural cycle between predators and prey that keeps things in balance:

- A. food chain
- B. predator-prey cycle
- C. population

6. Circle all the things that can cause major changes in an ecosystem.

- A. excavator
- B. lion
- C. cyclone
- D. earthquake
- E. people
- F. worm

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Finally, each unit has an assessment that is available in 3 versions. These are given 1:1 and read aloud to the student. It also includes a traditional multiple-choice version included.





- *This unit includes digital versions of the activities. These simply require the student to click and drag the answers. There is no drawing or typing involved.*
- *There are 2 complete sets of slides. One set is differentiated using color.*

**Make great independent learning centers.**

Watch the movie on Ecology

But what about the rest of the pond? What about the field where the pond is found? What about all those plants and animals that live around the field?



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*This unit also includes digital versions of the activities.*

*Students can watch a movie book version of the book rather than printing it out.*

Watch the movie on Biomes and Food Chains

Within each ecosystem, plants and animals are busy looking for food. This is the most important job they have.



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Use for more review.



Rabbits get food from:

Rabbits are a source of food for:

This animal is the prey:

This animal is the predator:

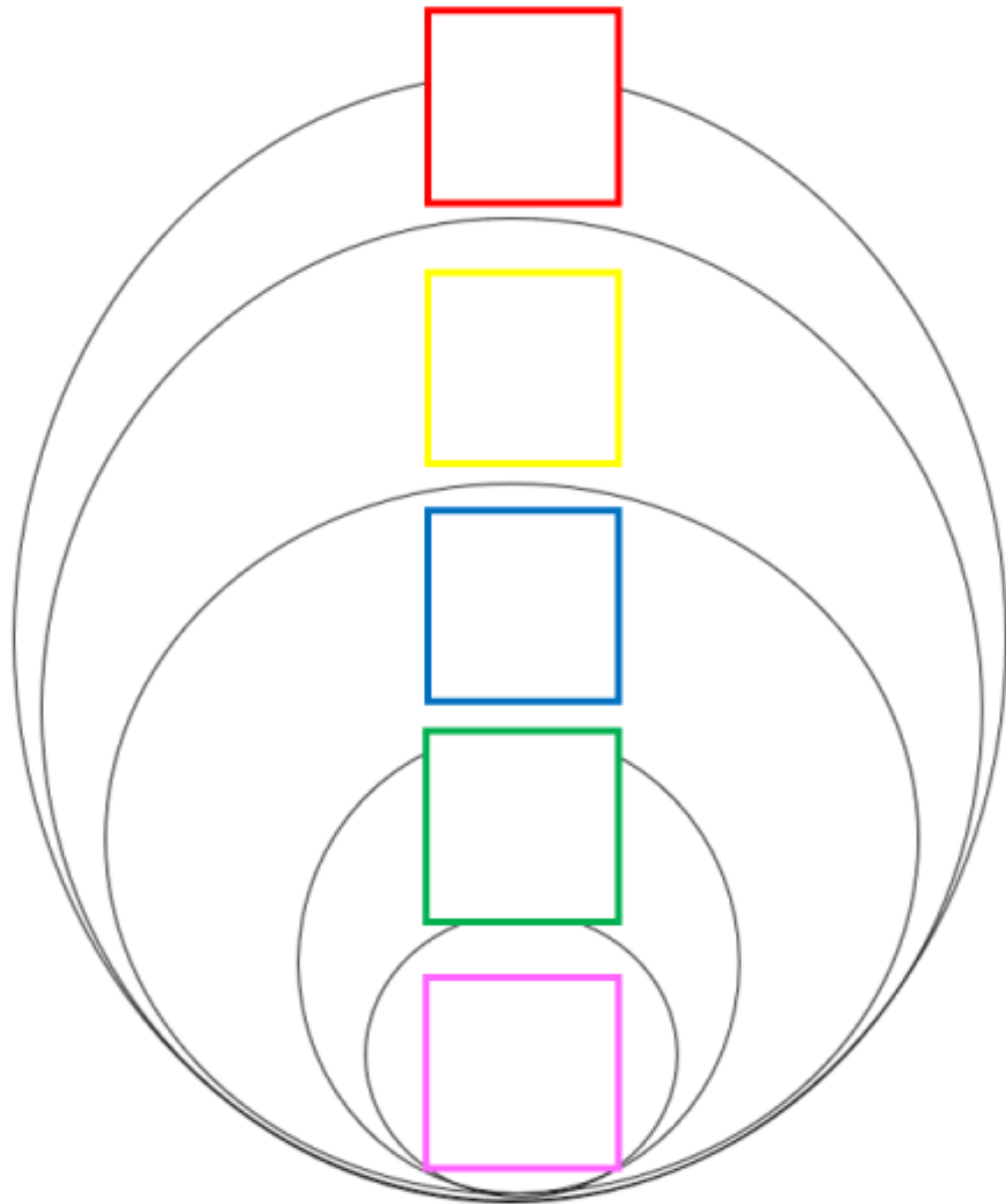
Look at the food chain, then answer the questions.



Each activity is set up so students can click and drag answers. No typing is required.

# Perfect for any learning level.

Label the layers.



The second set of slides uses color for differentiation and extra support for students who may need it. Mix and match slides from both sets to make the perfect set for each student.