SCIENCE

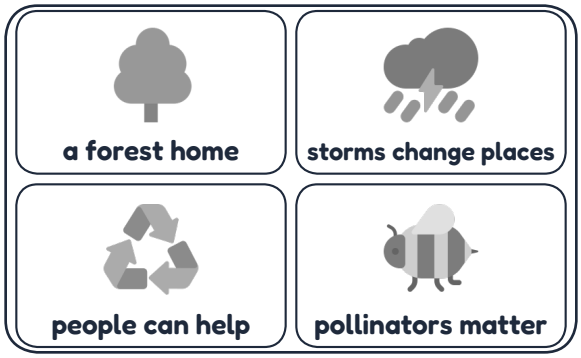
Changes in ecosystems

Name _____ Date _____

I can explain how changes to an ecosystem affect the living things in it.

1 How it works

An ecosystem is all the living and nonliving things in one place, working together. Ecosystems change: a storm knocks down trees, a dry summer shrinks a pond, or people build a road. When a place changes, some living things adapt, some move away and some cannot survive. People can harm ecosystems with litter and pollution, and help them by planting trees and protecting habitats.



2 Helps or harms the ecosystem? Circle one.



pick up trash

helps harms



cut a whole forest

helps harms



plant flowers for bees

helps harms



litter on a beach

helps harms



oil in a river

helps harms



recycle cans

helps harms



plant trees

helps harms



put up a bird box

helps harms

How did I do? ☆ ☆ ☆

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When things change

Name _____ Date _____

I can predict how a change affects living things.

1 What would happen? Draw a line.

 **a forest is cut down** ○	○ animals look for water
 **a river is polluted** ○	○ fish get sick
 **the bees disappear** ○	○ fewer fruits and seeds
 **a dry summer comes** ○	○ birds lose their nests
 **flowers are planted** ○	○ butterflies come back

2 Fill in the blanks

Use the words in the box.

trees **move** **bin** **pollen**

1. When a place changes, some animals _____ away.
2. Planting _____ gives birds homes.
3. Trash in a _____ keeps rivers clean.
4. Bees carry _____ between flowers.

How did I do? ☆ ☆ ☆

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Think like a scientist

Name _____ Date _____

I can explain how people can harm or help an ecosystem.

1 Think about it

1. What happens to animals when their home changes? _____
2. How can litter hurt a sea turtle? _____
3. Why do farmers need bees? _____
4. Name one way you can help. _____

2 True or false? Circle it.

1. People can help protect ecosystems.	**true**	**false**
2. Litter can harm animals.	**true**	**false**
3. Storms and floods can change an ecosystem.	**true**	**false**
4. Cutting down a forest helps every animal.	**true**	**false**
5. Ecosystems never change.	**true**	**false**

3 Draw a poster that asks people to protect an ecosystem near you.

How did I do? ☆ ☆ ☆

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Try it: the litter survey

Name _____ Date _____

I can find out what kind of litter is in one place and how to stop it.

1 You need

- gloves
- a trash bag
- a clipboard and a pencil
- an adult helper
- a recycling bin

2 What to do

1. With an adult, choose a small area, like one side of the playground.
2. Wear gloves. Pick up the litter you find, but leave anything sharp for the adult.
3. Sort the litter: plastic, paper, metal and other.
4. Count each kind, then recycle what you can.

3 I predict

Which kind of litter will you find the most?

_____

_____

4 What I see

Kind of litter	How many?	Can it be recycled?
plastic		
paper		
metal		
other		

How did I do? ☆ ☆ ☆

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FOR TEACHERS AND PARENTS

Answer key: changes in ecosystems

1 Page 1

Answers: 1) pick up trash: helps; 2) cut a whole forest: harms; 3) plant flowers for bees: helps; 4) litter on a beach: harms; 5) oil in a river: harms; 6) recycle cans: helps; 7) plant trees: helps; 8) put up a bird box: helps.

2 Page 2

Changes: 1) a forest is cut down: birds lose their nests; 2) a river is polluted: fish get sick; 3) the bees disappear: fewer fruits and seeds; 4) a dry summer comes: animals look for water; 5) flowers are planted: butterflies come back.

Blanks: 1) move; 2) trees; 3) bin; 4) pollen.

3 Page 3

Think: 1) Some adapt, some move and some die; 2) It can eat plastic or get tangled; 3) Bees carry pollen so fruit can grow; 4) Answers will vary, for example picking up litter.

True or false: 1) true; 2) true; 3) true; 4) false; 5) false.

Drawing: answers will vary. Look for a clear message, such as keeping a river clean or planting trees.

4 Page 4: Try it!

Most surveys find more plastic than anything else: wrappers, bottle caps and bags. Plastic lasts a very long time and can harm animals that eat it or get tangled in it. Children can suggest real fixes, such as more bins, a sign, or reusable lunch boxes.

5 Teaching tip

Take a short walk around the school grounds and look for one change people made, like a path or a garden. Ask: which living things does this help, and which does it harm?

Safety: always wear gloves, work with an adult and never pick up glass or sharp things.