

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## What is an Environmental Engineer?

Draw and label a picture of an environmental engineer at work.



Explain your drawing of an environmental engineer:

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Name: \_\_\_\_\_ Date: \_\_\_\_\_

## What is an Environmental Engineer?

**B**

Draw a picture of an environmental engineer at work.  
Label your picture.



Name: \_\_\_\_\_ Date: \_\_\_\_\_

A

*Directions: For each question below, circle the **BEST** answer.*

1. An environmental engineer would MOST LIKELY design:
  - A. a garden.
  - B. an animal park.
  - C. a way to clean water.
  - D. computer-controlled boats.
  
2. Which of the following would NOT be part of the job of an environmental engineer?
  - A. design a technology to clean pollution
  - B. investigate where soil pollution is coming from
  - C. pollute a stream to see how it affects the environment
  - D. make recommendations to a community on how to clean up river pollution
  
3. What would an environmental engineer MOST LIKELY do for his or her job?
  - A. study what whales eat
  - B. create new plant species
  - C. design a way to keep the air clean
  - D. design computers that work outside

Name: \_\_\_\_\_ Date: \_\_\_\_\_

A

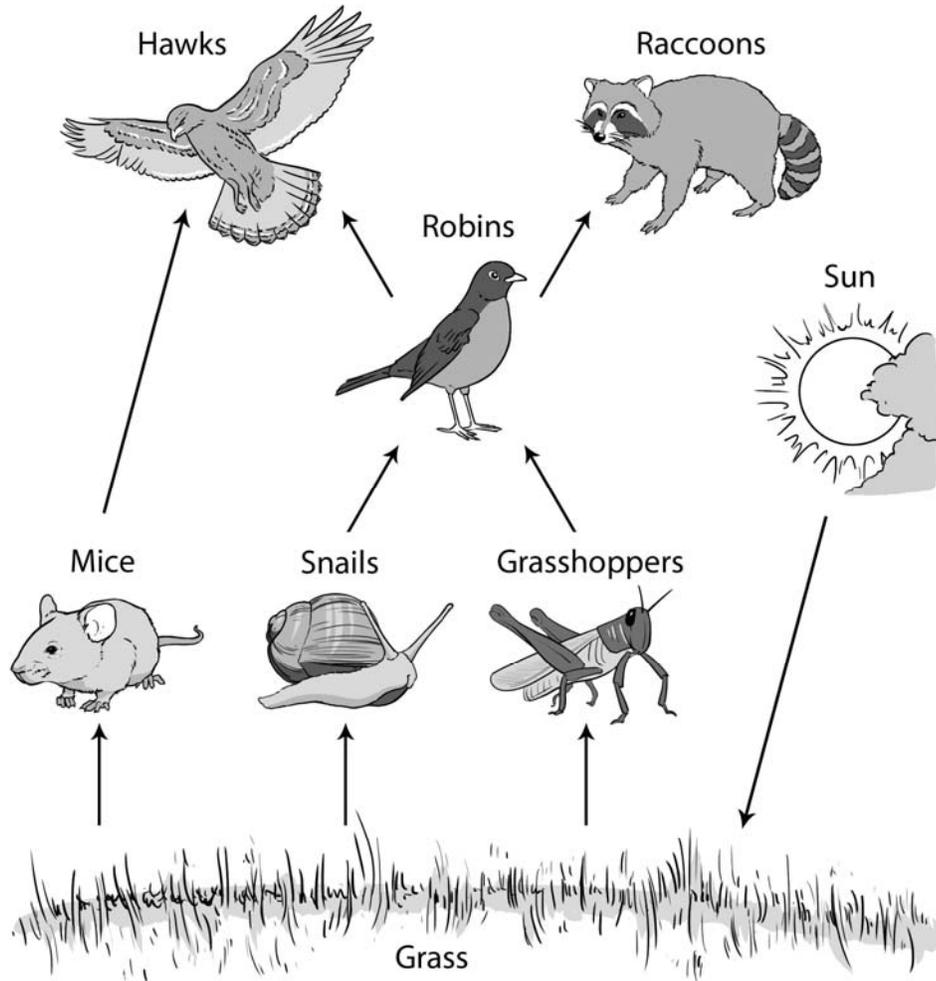
B

Directions: Decide whether each statement below is TRUE ( 😊 T ) or FALSE ( ☹ F ) and circle your answer.

Environmental engineers think about how to keep things from getting polluted.	😊 T	☹ F
At work, an environmental engineer would study whales.	😊 T	☹ F
An environmental engineer would help to invent computer-controlled boats.	😊 T	☹ F
An environmental engineer would help figure out how to build a new highway.	😊 T	☹ F
Environmental engineers think about how to protect ecosystems.	😊 T	☹ F
At work, an environmental engineer would figure out a way to get pollution out of water.	😊 T	☹ F
At work, an environmental engineer would create a new kind of plant.	😊 T	☹ F
At work, an environmental engineer would design computers that work outside.	😊 T	☹ F

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Use this food web diagram to answer the questions below.



1. On the diagram above, put a CIRCLE around the consumers.

2. On the diagram above, put an X over the producers.

Turn over for more questions.

*Directions: Use the **food web diagram** from the previous page to answer the questions below.*

3. What do the arrows in the food web diagram show?

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4. In the food web diagram, what does the arrow from the grasshopper to the robin mean?

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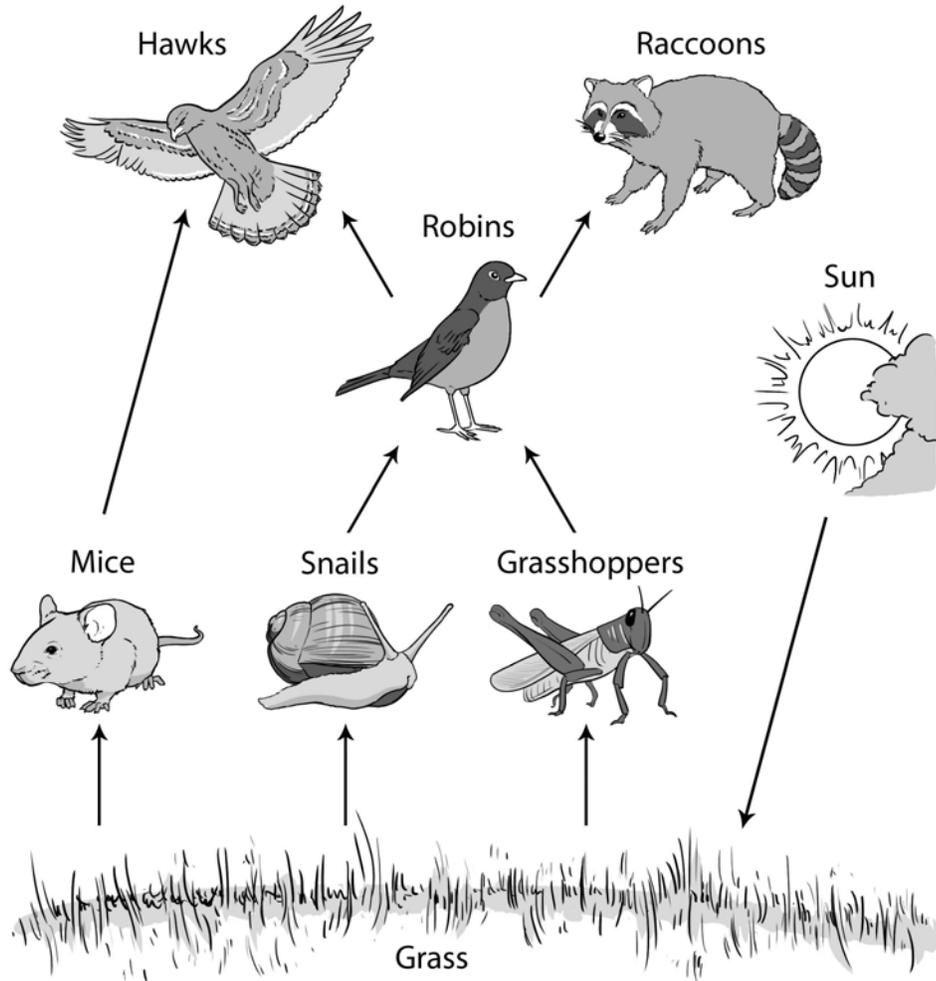
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Name: \_\_\_\_\_ Date: \_\_\_\_\_

**B**

Use this food web diagram to answer the questions below.

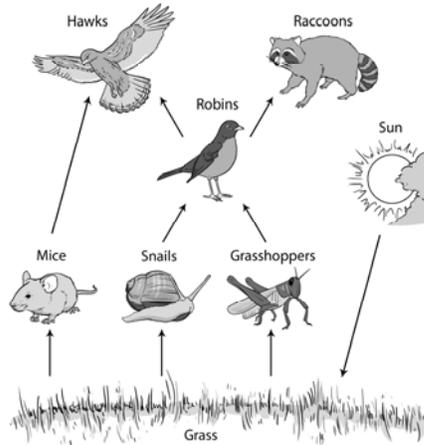


1. On the diagram above, put a CIRCLE around the consumers.

2. On the diagram above, put an X over the producers.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Directions: Use this food web diagram to answer the questions below. Circle your choice for each statement.



1. If the grass in the meadow stopped growing, what would probably happen in the meadow ecosystem?

a.	There would be...	<b>fewer / no change / more</b>	snails.
b.	There would be...	<b>fewer / no change / more</b>	grasshoppers.
c.	There would be...	<b>fewer / no change / more</b>	robins.
d.	There would be...	<b>fewer / no change / more</b>	hawks.
e.	There would be...	<b>fewer / no change / more</b>	raccoons.

2. If a disease caused most of the robins to die, what would probably happen in the meadow ecosystem?

a.	There would be...	<b>less / no change / more</b>	grass.
b.	There would be...	<b>fewer / no change / more</b>	snails.
c.	There would be...	<b>fewer / no change / more</b>	grasshoppers.
d.	There would be...	<b>fewer / no change / more</b>	hawks.
e.	There would be...	<b>fewer / no change / more</b>	raccoons.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

*Directions: Decide whether each statement below is TRUE (T) or FALSE (F) and circle your answer.*

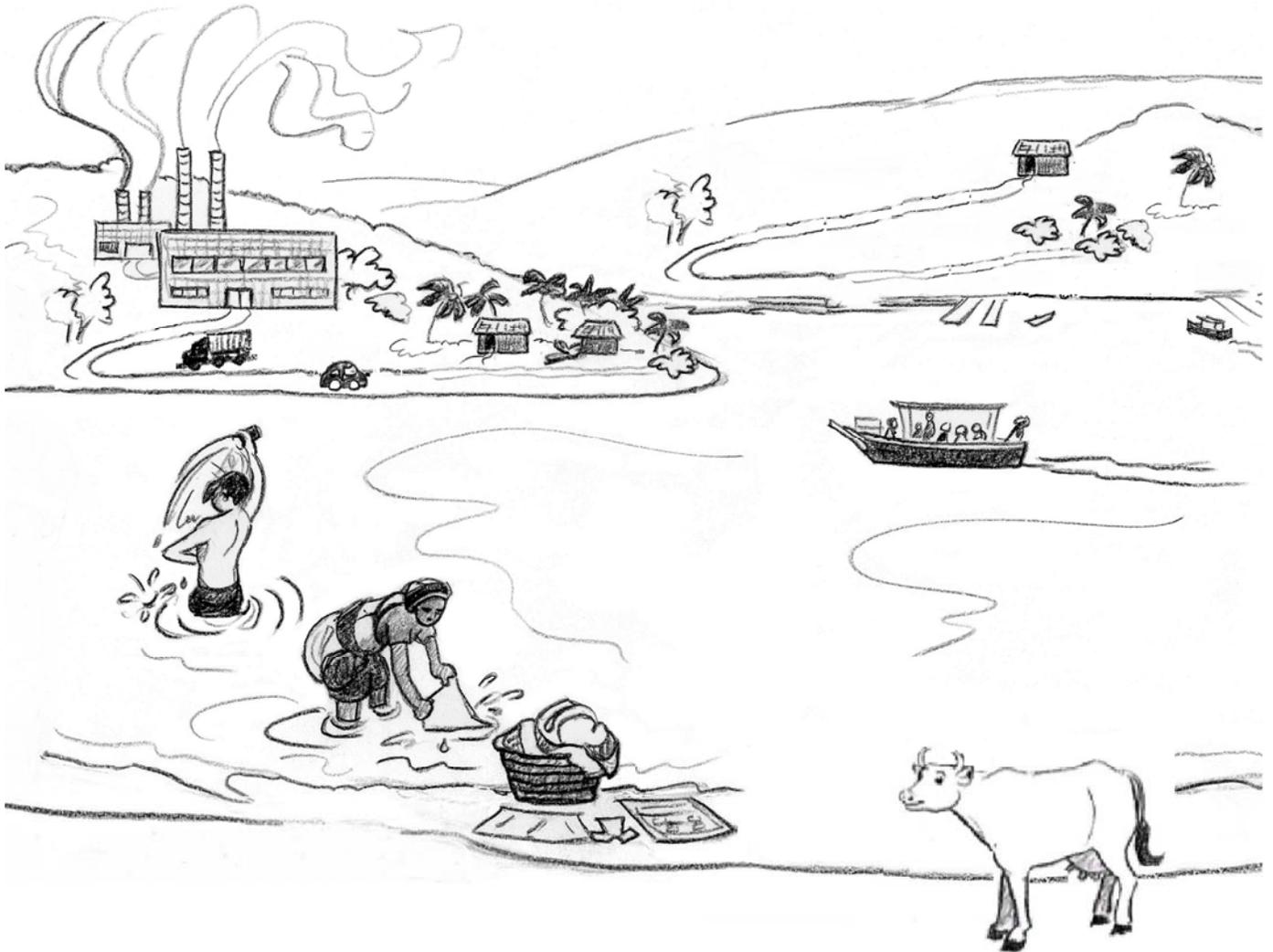
Pollution always stays in one place because it can't move to new areas.	T	F
If chemicals get into the dirt near a factory, the fish in a pond nearby can get sick.	T	F
Plants don't get sick from pollution.	T	F
If chemicals get into the dirt near a factory, the animals that live near the factory can get sick.	T	F
If chemicals get into the dirt near a factory, the plants growing two miles away can get sick.	T	F
If the water in a lake gets polluted, fish in the lake will get sick, but plants around the lake will not get sick.	T	F
If a pond gets polluted, all of the animals that live there will find a new place to live.	T	F

Name: \_\_\_\_\_ Date: \_\_\_\_\_

A

B

Directions: Circle **AT LEAST 4** sources of pollution in the picture below.



Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Which of the following are possible sources of pollution?

Mark **ALL** that apply:

- oil spilled by broken machines
- leaves that fell from the trees onto the ground
- soap from washing clothes
- waste from farm animals
- fertilizer that people put on their grass to make it grow
- chemicals made in a factory
- an empty water bottle that someone threw on the ground

2. Do you think that rain could ever be a source of pollution? Explain.

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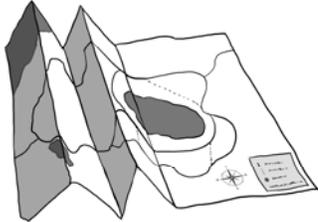
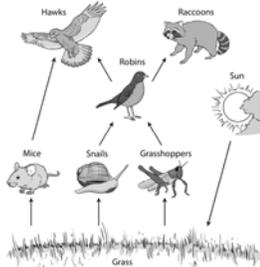
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Name: \_\_\_\_\_ Date: \_\_\_\_\_

Directions: Which of these things is a model? Circle **ALL** the models below.

 <p>map of hiking trails</p>	 <p>battery</p>	 <p>suit of armor</p>
 <p>microscope</p>	 <p>miniature bridge</p>	 <p>bicycle</p>
 <p>a picture of a food web</p>	 <p>plastic globe</p>	 <p>doll house</p>

What is YOUR definition of the word "model"?

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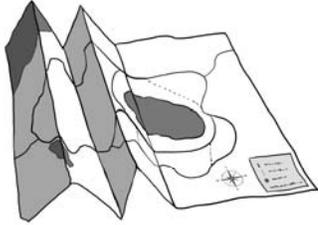
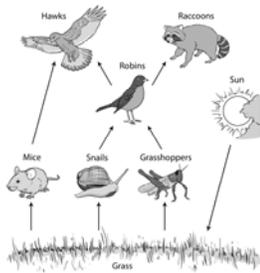


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Name: \_\_\_\_\_ Date: \_\_\_\_\_

**B**

Directions: Which of these things is a model? Circle **ALL** the models below.

 <p>map of hiking trails</p>	 <p>battery</p>	 <p>suit of armor</p>
 <p>microscope</p>	 <p>miniature bridge</p>	 <p>bicycle</p>
 <p>a picture of a food web</p>	 <p>plastic globe</p>	 <p>doll house</p>

Name: \_\_\_\_\_ Date: \_\_\_\_\_

A

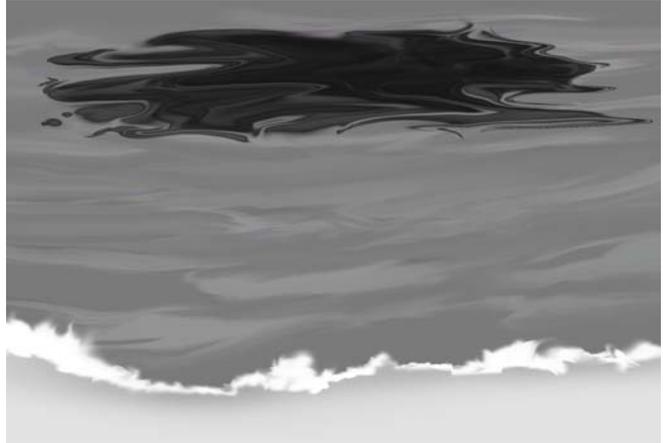
B

Directions: Decide whether each statement below is TRUE ( 😊 T ) or FALSE ( ☹ F ) and circle your answer.

Models need to look like the real thing.	😊 T	☹ F
Models could help people test whether a bridge will be strong enough.	😊 T	☹ F
Models help people learn how things work.	😊 T	☹ F
Models need to be smaller than the real thing.	😊 T	☹ F
Models can help people test different designs.	😊 T	☹ F
Models can help engineers skip the design process.	😊 T	☹ F
Models need to represent something about the real thing.	😊 T	☹ F
Models can help show people what a bridge will look like.	😊 T	☹ F

Name: \_\_\_\_\_ Date: \_\_\_\_\_

A ship was involved in an accident. You notice that it has spilled oil into the ocean.



1. What is the FIRST thing you would do prevent further damage to the environment?

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2. How would you remove the oil from the surface of water?

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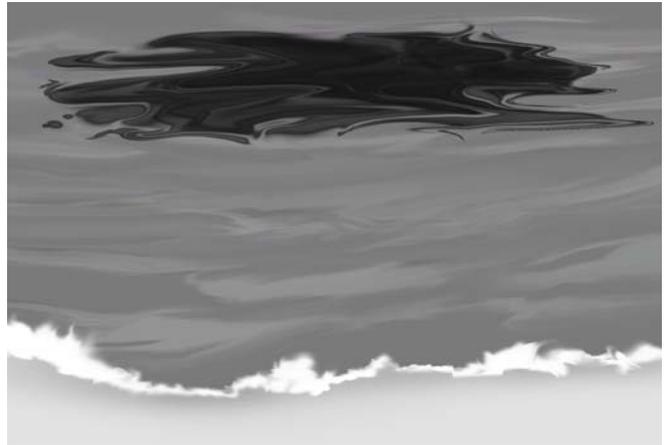
3. Draw and label your plan in the box on the following page.

Draw your plan in the box below. Label the parts.

A large, empty rectangular box with a thin black border, intended for a student to draw a plan and label its parts.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

A ship was involved in an accident. You notice that it has spilled oil into the ocean.



**B**

How would you prevent the oil from harming the environment?

Draw your plan in the box below. Label the parts.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## What is an Environmental Engineer?

Draw and label a picture of an environmental engineer at work.

*A good picture would show someone working to solve problems with air, water, soil, and the natural environment. The picture may include someone designing a technology to clean air, water or soil; someone testing a soil or water sample to look for pollutants or other problems, etc.*

Explain your drawing of an environmental engineer:

*Answers will vary, but may include: someone concerned with solving problems with air, water, soil, and the natural environment.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## What is an Environmental Engineer?

Draw a picture of an environmental engineer at work.  
Label your picture.

*A good picture would show someone working to solve problems with air, water, soil, and the natural environment. The picture may include someone designing a technology to clean air, water or soil; someone testing a soil or water sample to look for pollutants or other problems, etc.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

*Directions: For each question below, circle the **BEST** answer.*

1. An environmental engineer would MOST LIKELY design:
  - A. a garden.
  - B. an animal park.
  - C. a way to clean water.
  - D. computer-controlled boats.
  
2. Which of the following would NOT be part of the job of an environmental engineer?
  - A. design a technology to clean pollution
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3. What would an environmental engineer MOST LIKELY do for his or her job?
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Name: \_\_\_\_\_ Date: \_\_\_\_\_

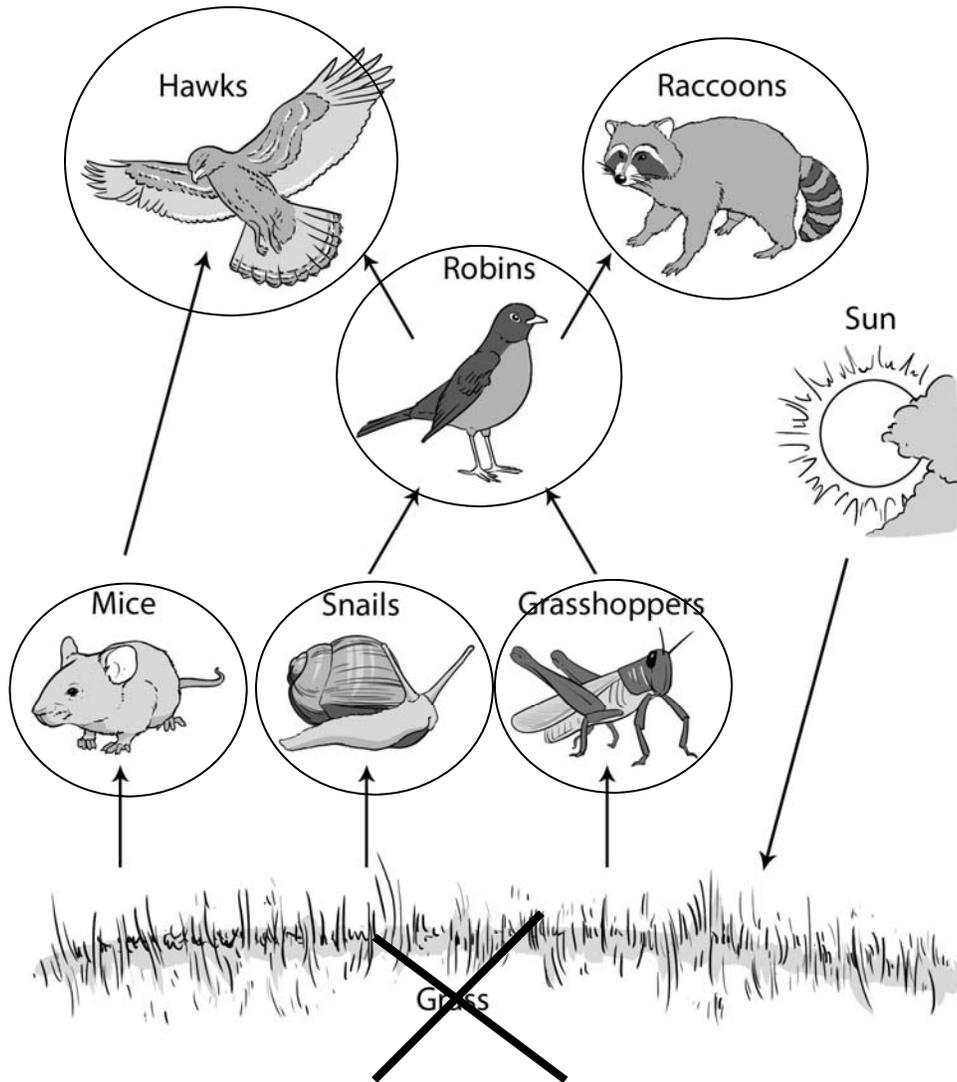
Directions: Decide whether each statement below is TRUE ( 😊 T ) or FALSE ( 😞 F ) and circle your answer.

Answer Key

Environmental engineers think about how to keep things from getting polluted.	<input checked="" type="radio"/> T	<input type="radio"/> F
At work, an environmental engineer would study whales.	<input type="radio"/> T	<input checked="" type="radio"/> F
An environmental engineer would help to invent computer-controlled boats.	<input type="radio"/> T	<input checked="" type="radio"/> F
An environmental engineer would help figure out how to build a new highway.	<input checked="" type="radio"/> T	<input type="radio"/> F
Environmental engineers think about how to protect ecosystems.	<input checked="" type="radio"/> T	<input type="radio"/> F
At work, an environmental engineer would figure out a way to get pollution out of water.	<input checked="" type="radio"/> T	<input type="radio"/> F
At work, an environmental engineer would create a new kind of plant.	<input type="radio"/> T	<input checked="" type="radio"/> F
At work, an environmental engineer would design computers that work outside.	<input type="radio"/> T	<input checked="" type="radio"/> F

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Use this food web diagram to answer the questions below.



1. On the diagram above, put a CIRCLE around the consumers.

2. On the diagram above, put an X over the producers.

Turn over for more questions.

*Directions: Use the **food web diagram** from the previous page to answer the questions below.*

1. What do the arrows in the food web diagram show?

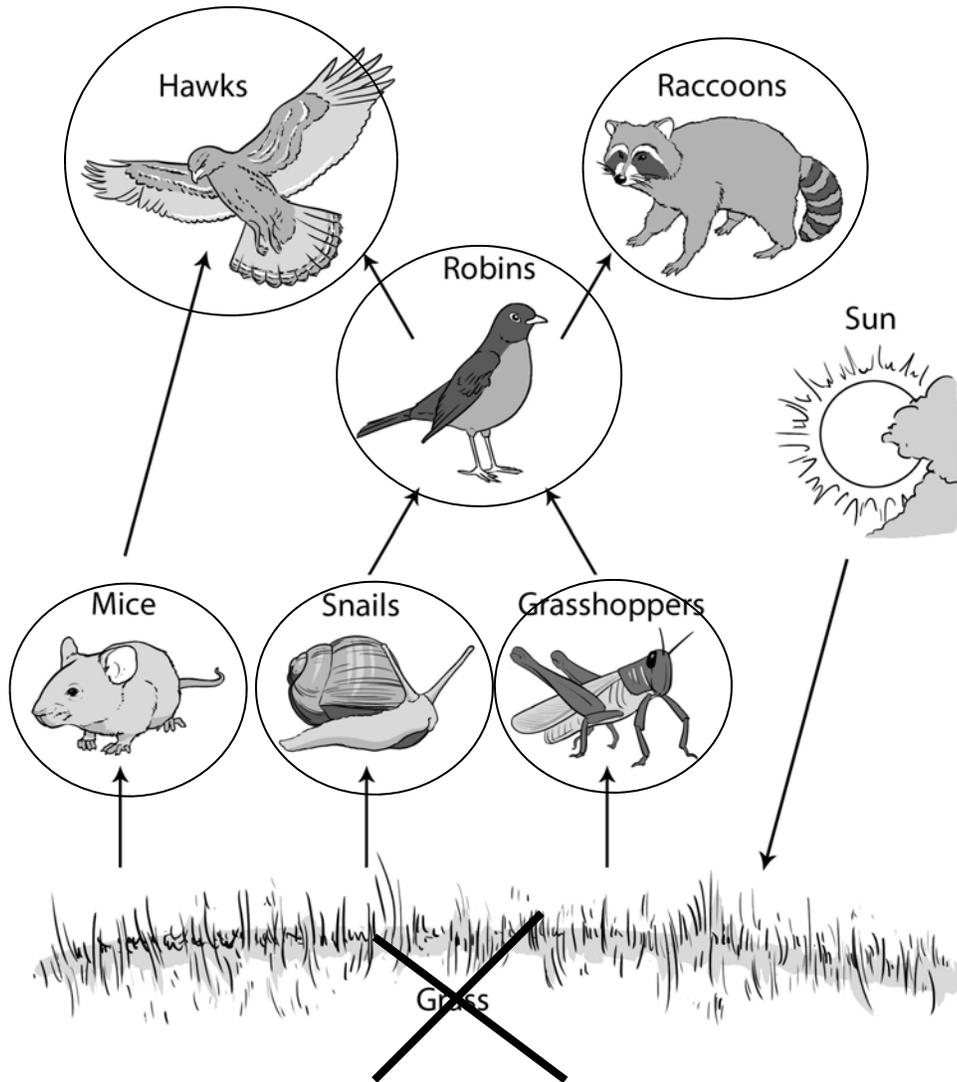
*Where each species in the ecosystem gets its energy or what each species eats.*

2. In the food web diagram, what does the arrow from the grasshopper to the robin mean?

*That the robins get energy from or eat grasshoppers.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Use this food web diagram to answer the questions below.

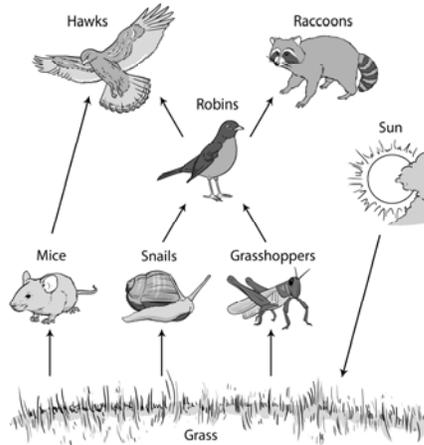


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Name: \_\_\_\_\_ Date: \_\_\_\_\_

Directions: Use this food web diagram to answer the questions below. Circle your choice for each statement.



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a.	There would be...	<b>fewer</b> / no change / more	snails.
b.	There would be...	<b>fewer</b> / no change / more	grasshoppers.
c.	There would be...	<b>fewer</b> / no change / more	robins.
d.	There would be...	<b>fewer</b> / no change / more	hawks.
e.	There would be...	<b>fewer</b> / no change / more	raccoons.

2. If a disease caused most of the robins to die, what would probably happen in the meadow ecosystem?

a.	There would be...	<b>less</b> / no change / more	grass.
b.	There would be...	fewer / no change / <b>more</b>	snails.
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Name: \_\_\_\_\_ Date: \_\_\_\_\_

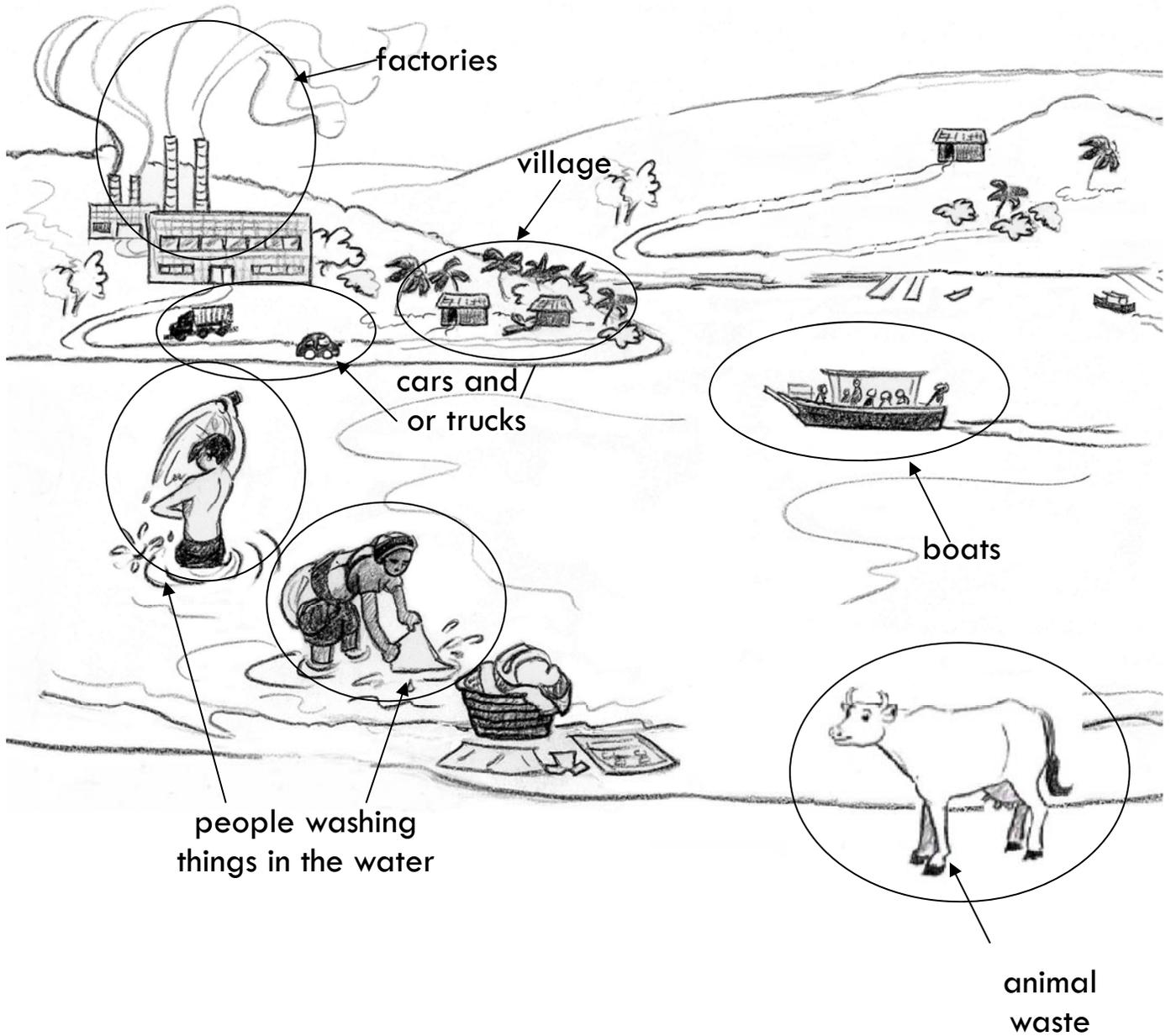
*Directions: Decide whether each statement below is TRUE (T) or FALSE (F) and circle your answer.*

**Answer Key**

Pollution always stays in one place because it can't move to new areas.	T	F
If chemicals get into the dirt near a factory, the fish in a pond nearby can get sick.	T	F
Plants don't get sick from pollution.	T	F
If chemicals get into the dirt near a factory, the animals that live near the factory can get sick.	T	F
If chemicals get into the dirt near a factory, the plants growing two miles away can get sick.	T	F
If the water in a lake gets polluted, fish in the lake will get sick, but plants around the lake will not get sick.	T	F
If a pond gets polluted, all of the animals that live there will find a new place to live.	T	F

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Circle and label **AT LEAST 4** sources of pollution in the picture below.



Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Which of the following are possible sources of pollution?

Mark **ALL** that apply:

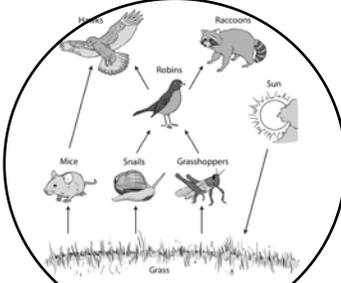
- oil spilled by broken machines
- leaves that fell from the trees onto the ground
- soap from washing clothes
- waste from farm animals
- fertilizer that people put on their grass to make it grow
- chemicals made in a factory
- an empty water bottle that someone threw on the ground

2. Do you think that rain could ever be a source of pollution? Explain.

*Yes, it could be acid rain. Acid rain is rain that includes some acid and can be harmful to the environment.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Directions: Which of these things is a model? Circle **ALL** the models below.

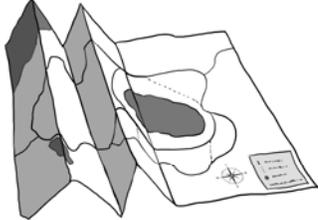
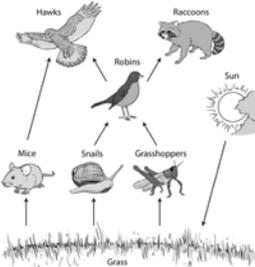
 <p>map of hiking trails</p>	 <p>battery</p>	 <p>suit of armor</p>
 <p>microscope</p>	 <p>miniature bridge</p>	 <p>bicycle</p>
 <p>a picture of a food web</p>	 <p>plastic globe</p>	 <p>doll house</p>

What is YOUR definition of the word “model”?

*A model is a representation of an object, system, or phenomenon.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Directions: Which of these things is a model? Circle **ALL** the models below.

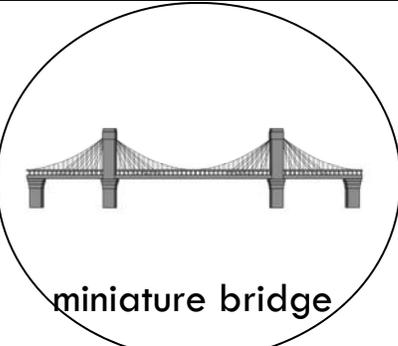
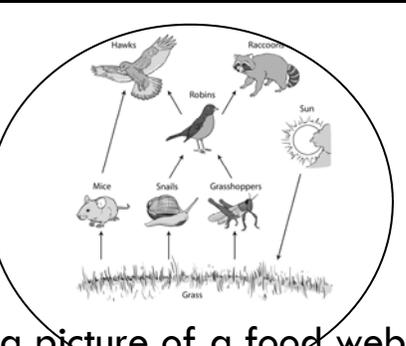
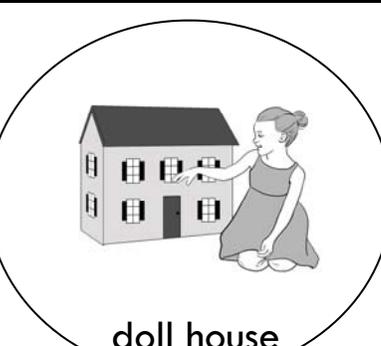
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Name: \_\_\_\_\_ Date: \_\_\_\_\_

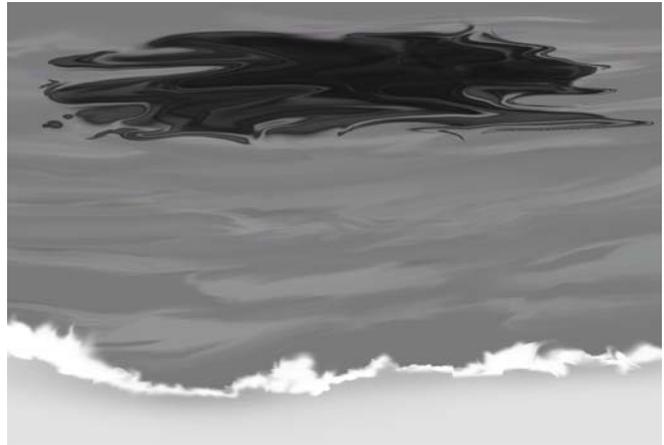
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**Answer Key**

Models need to look like the real thing.	😊 T	😞 F
Models could help people test whether a bridge will be strong enough.	😊 T	😞 F
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Models can help people test different designs.	😊 T	😞 F
Models can help engineers skip the design process.	😊 T	😞 F
Models need to represent something about the real thing.	😊 T	😞 F
Models can help show people what a bridge will look like.	😊 T	😞 F

Name: \_\_\_\_\_ Date: \_\_\_\_\_

A ship was involved in an accident. You notice that it has spilled oil into the ocean.



1. What is the **FIRST** thing you would do prevent further damage to the environment?

*Use a rope (or some other material) to contain the oil so it doesn't spread.*

2. How would you remove the oil from the surface of water?

*Answers will vary, but may include: use an absorbent material to soak up the oil, use a shovel (or some other tool) to scoop up the oil, etc.*

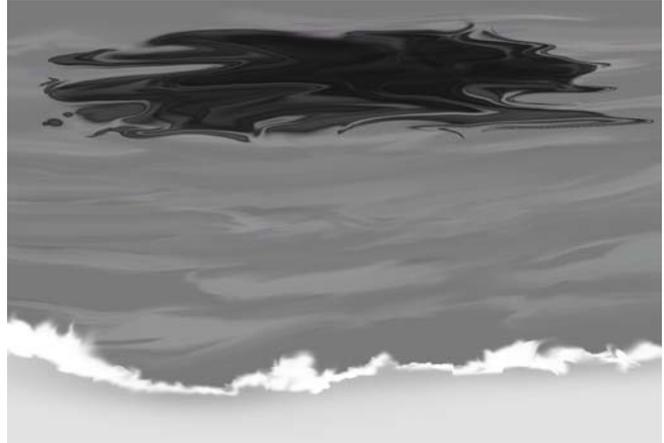
3. Draw and label your plan in the box on the following page.

Draw your plan in the box below. Label the parts.

*A good picture might show: using a rope (or some other material) to contain the oil so it doesn't spread, using an absorbent material to soak up the oil, using a shovel (or some other tool) to scoop up the oil, etc.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

A ship was involved in an accident. You notice that it has spilled oil into the ocean.



How would you prevent the oil from harming the environment?

Draw your plan in the box below. Label the parts.

*A good picture might show: using a rope (or some other material) to contain the oil so it doesn't spread, using an absorbent material to soak up the oil, using a shovel (or some other tool) to scoop up the oil, etc.*