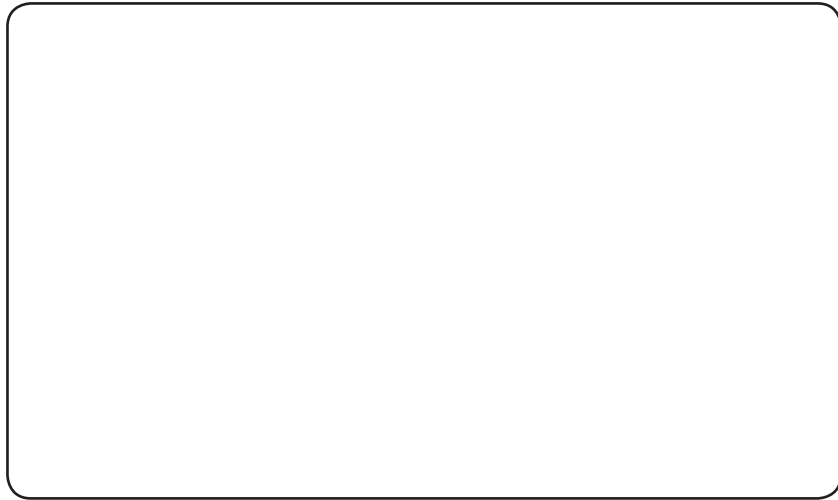


TERRARIUM MAP



KEY

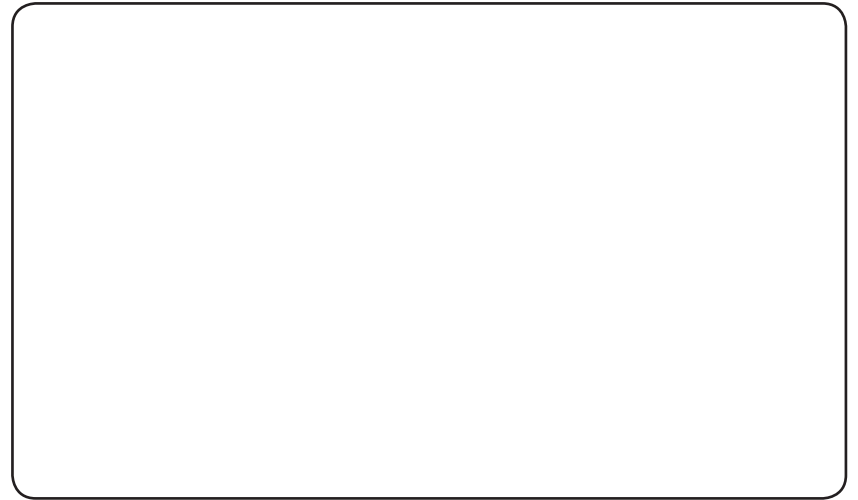
<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
<input type="checkbox"/>	_____	<input type="checkbox"/>	_____		

How much water did you put into your terrarium? _____

Where did you put it?

Comments

TERRARIUM MAP



KEY

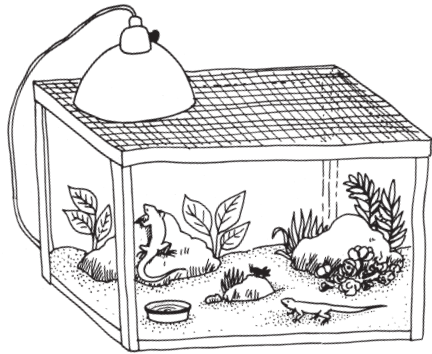
<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
<input type="checkbox"/>	_____	<input type="checkbox"/>	_____		

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Where did you put it?

Comments

RESPONSE SHEET
TERRESTRIAL ENVIRONMENTS



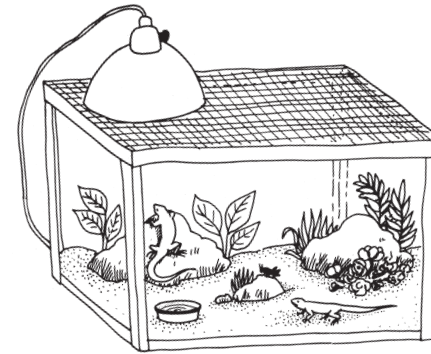
A student used the picture above to make a list of all the environmental factors she saw in this terrestrial environment. She put an *L* next to each factor she identified as a living factor. The list she made is shown below.

- salamanders *L*
- cricket *L*
- rocks
- pan of water
- broad-leafed plants *L*
- light *L*
- grassy plants *L*
- glass terrarium
- thin-leafed plants *L*
- soil *L*
- flowering plants *L*

Do you agree or disagree with the factors she identified as living factors?
 Explain any items you disagree with.

Describe how three of the nonliving factors might influence the living factors in this terrarium.

RESPONSE SHEET
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RUNWAY CONSTRUCTION

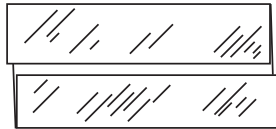
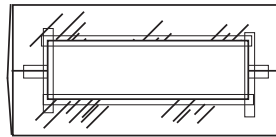
MATERIALS

- 1 Piece of aluminum foil, 36 cm × 46 cm
- 1 Strip of stiff paper, 7 cm × 28 cm
- 1 Metric ruler or meter tape
- Transparent tape

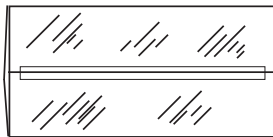
CONSTRUCTION

1. Fold the sheet of aluminum foil in half the long way and then open it up flat.
4. Place the strip of stiff paper in the center of the aluminum foil. Tape all four edges of the paper.

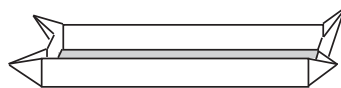
2. Fold one edge to the center line, crease the fold. Then fold the other edge to the center line, crease the fold.



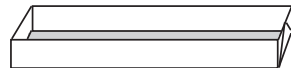
3. Tape the seam where the edges meet.



5. Turn the foil over so the paper is down. Fold the foil up to make walls right along the four edges of the paper.



6. Fold the triangular points at each corner flat along the ends of the runway.



RUNWAY CONSTRUCTION

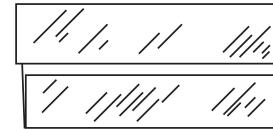
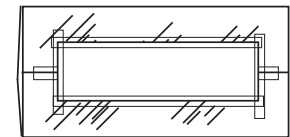
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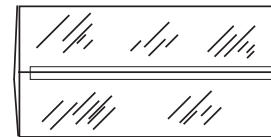
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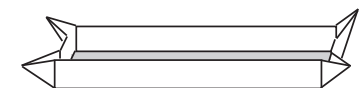
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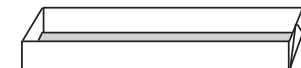
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ANIMAL INVESTIGATIONS

.....

Animal _____ Environmental factor tested _____

Part 1. Setup

Describe how you set up the runway.

Part 2. Results

Record where each animal was and what it was doing (on surface, buried, moving).

Short run. This is where the animals were after _____ minutes.

Long run. This is where the animals were after _____ hours.

Part 3. Conclusions

What did you find out about the animals' environmental preferences?

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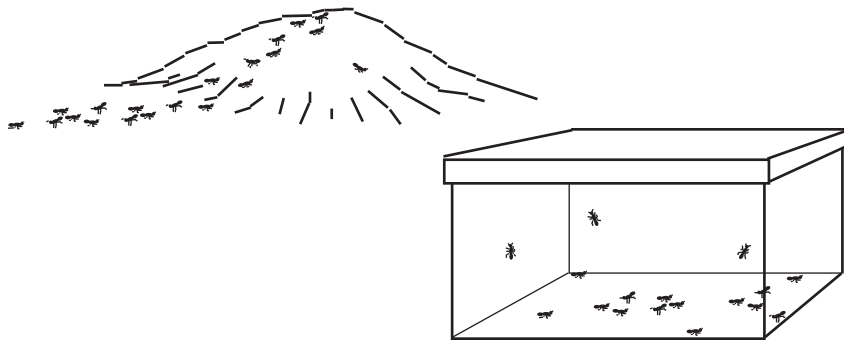
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RESPONSE SHEET—BUGS AND BEETLES

Students in two fifth-grade classes at Evergreen School decided to study ants. Ms. Field's students found an anthill near the playground to observe. Ms. Glass's students observed ants in a terrarium in their classroom.

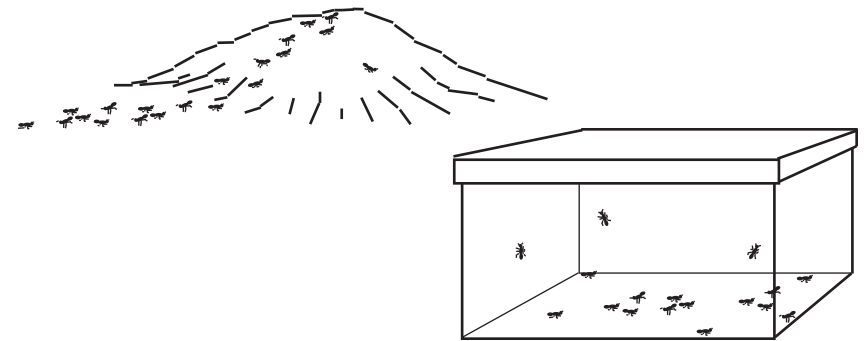
Which class chose the better method to study ants? Explain why you think so.



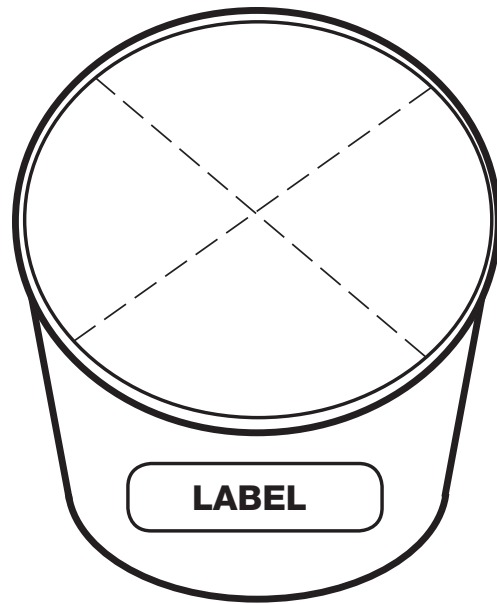
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PLANT EXPERIMENT SETUP



Environmental factor tested _____

Planting date _____

Number of each seed planted

Barley _____

Corn _____

Pea _____

Radish _____

Map where each seed is planted.

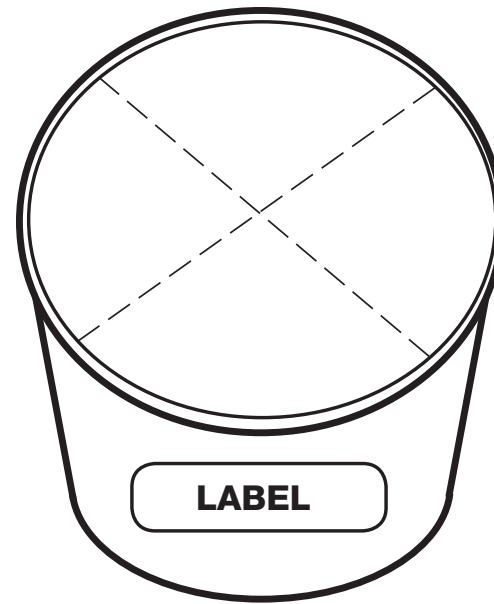
Plant all four containers exactly the same way.

KEY

<input type="checkbox"/>	Barley	<input type="checkbox"/>	Corn	<input type="checkbox"/>	Pea	<input type="checkbox"/>	Radish
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Comments

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--------------------------	--------	--------------------------	------	--------------------------	-----	--------------------------	--------

Comments

PLANT OBSERVATIONS

Part 1. Number of days after planting _____

Environment	How many plants came up	Height of tallest plant

Environmental factor _____
Planting date _____
Seed type _____
Number of seeds of this kind planted _____

Part 2. Number of days after planting _____

Environment	How many plants came up	Height of tallest plant	Most leaves on one plant

Part 3. Number of days after planting _____

Environment	How many plants came up	Height of tallest plant	Most leaves on one plant	Length of longest leaf	Length of longest root

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RESPONSE SHEET—WATER TOLERANCE

.....

Flora and Bunda were neighbors. Each woman bought a new rose bush on the same day. The rose bushes were exactly the same size. They also bought a watering can to share.

Every day for 3 weeks Flora put one full watering can of water on her rose bush. Every day for 3 weeks Bunda also put one full watering can of water on her rose bush AND every day for 3 weeks she added some fertilizer to the soil around the rose bush.

At the end of 3 weeks Flora's rose bush was much bigger than Bunda's. What might have caused this result?

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RESPONSE SHEET—AQUATIC ENVIRONMENTS

.....

Charlotte wrote in her journal,

Today we put a few drops of BTB in a cup of water. Then we put a fish in the water. After 20 minutes I noticed that the water had turned from blue to yellow. We think if we put a tadpole or crayfish in water containing BTB it would turn yellow in 20 minutes, too.

Do you agree or disagree? Explain your thinking.

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WARNING — This set contains chemicals that may be harmful if misused. Read cautions on individual containers carefully. Not to be used by children except under adult supervision.

BRINE SHRIMP HATCHING

PART 1

What day of your experiment did you first notice hatching?

(Count setup day as day 1.)

Day 1 Day 2 Day 3 Day 4

In which container did you first observe hatching?

0 spoons 1 spoon 2 spoons 3 spoons

What additional observations did you make?

PART 2

Record the number of eggs that hatched in each salt condition.

Make an X in one box for each salt condition.

Day _____ (Count setup day as day 1.)

	SALT CONDITIONS			
	0 SPOONS	1 SPOON	2 SPOON	3 SPOON
MOST				
SOME				
NONE				

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RESPONSE SHEET—BRINE SHRIMP HATCHING

Terry wanted to hatch some brine shrimp. He went to a pet store and bought some brine shrimp eggs. Terry had heard that brine shrimp eggs hatch when they are in salt water, so he put some water in a bowl, dumped in a bunch of salt, and put the brine shrimp eggs into the salted water.

After 3 days the brine shrimp eggs had not hatched. Terry concluded that the eggs he got at the pet store were dead. Do you agree with Terry's conclusion? Explain what Terry could do to get the brine shrimp eggs to hatch.

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RESPONSE SHEET—SALT OF THE EARTH

.....

Here is a chance for you to help scientists solve a problem. Mike and Mary are two scientists who travel up small streams that flow into the large Amazon River in South America. They study the plants and animals along the streams. As they travel upstream, they usually find that the number of insects around them increases. When they are near the headwaters where the streams begin, they expect to be surrounded by swarms of insects.

One day they traveled up a stream they had not been on before. As they got nearer to the source of the stream, the number of insects declined until there were almost none at the headwaters. The scientists were puzzled. List some ideas you have that might explain why this one stream had fewer insects near its source.

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FOSS ENVIRONMENTS MODULE
PROJECT PROPOSAL

1. What is the question or the project that you are proposing?
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