

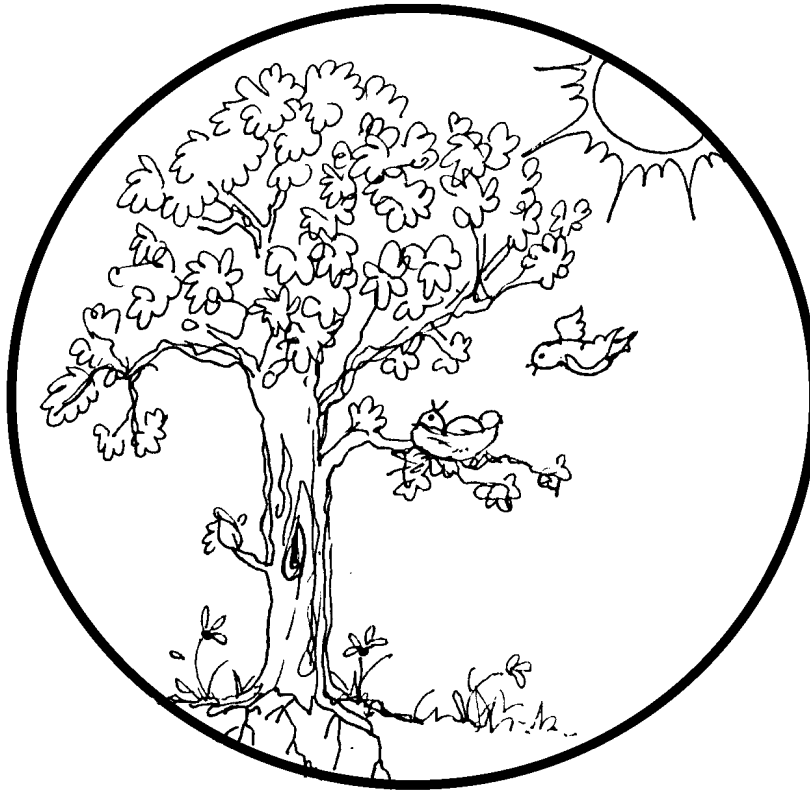


# Life Cycle

Diversity in a Balance



## THIRD GRADE WORKBOOK



student \_\_\_\_\_

**LIFE CYCLE - ORGANISMS (3A)**  
**LAB**

**PROBLEM:** Are there different types of invertebrates?

**PREDICTION:**

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**PROCEDURE:** Look at the different invertebrates by using your eyes, hand lens, or microscope. Draw and describe your specimens.

INVERTEBRATE	DESCRIBE	DRAW
SPONGE		
SNAIL		
CLAM		
SEA COOKIE		
CORAL		
BARNACLE		

**CONCLUSION:** What words can be used to distinguish the different invertebrates?

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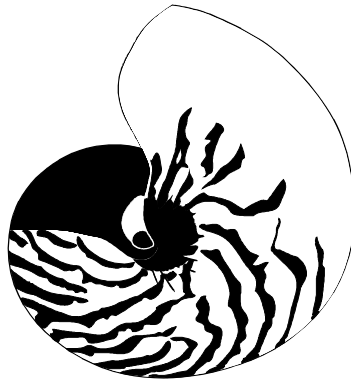
**LIFE CYCLE - ORGANISMS (3A)**  
**POST**

**MARINE INVERTEBRATES**

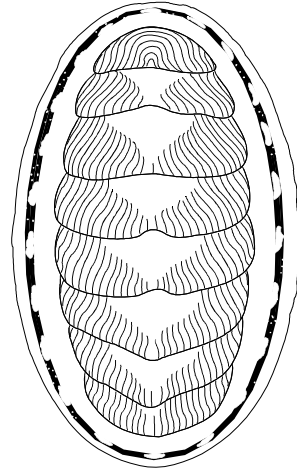
Use the Internet or books to find the real colors of these organisms that live in the sea.



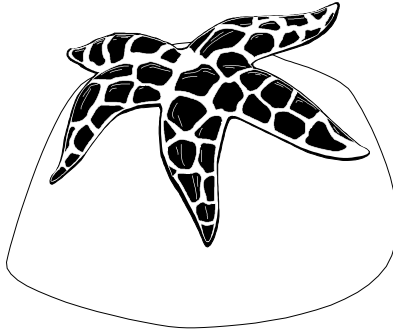
Barnacle (Arthropod)



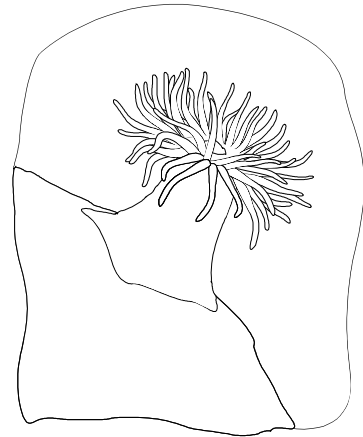
Nautilus (Mollusca)



Chiton (Mollusca)



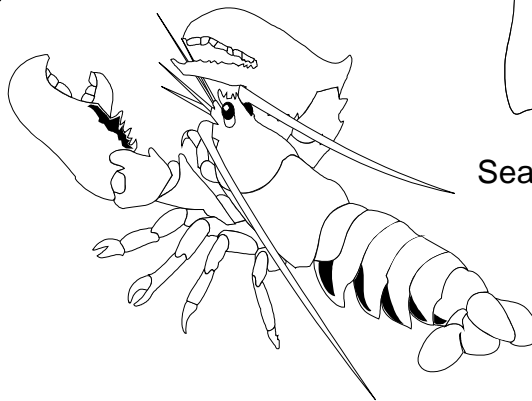
Seastar (Echinoderm)



Sea Anemone (Cnidaria)



Cone shell (Mollusca)



Lobster (Arthropod)

## LIFE CYCLE - ORGANISMS (3B)

**PROBLEM:** How can you tell one arthropod from another?

**PREDICTION:** \_\_\_\_\_

**PROCEDURE:** Sort the insects using and try to identify them using the worksheet. Describe the head, body and appendages. Fill in the information below.

insect name	head	body	appendages

Look at the horseshoe crab and crab. Describe them.

Horseshoe crab \_\_\_\_\_

Crab \_\_\_\_\_

Look at the brine shrimp under the microscope. Draw what you see on the back of the lab sheet. Describe what you see. Can you tell the difference between a female and male brine shrimp? How?

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**CONCLUSIONS:** What characteristics do all arthropods share?

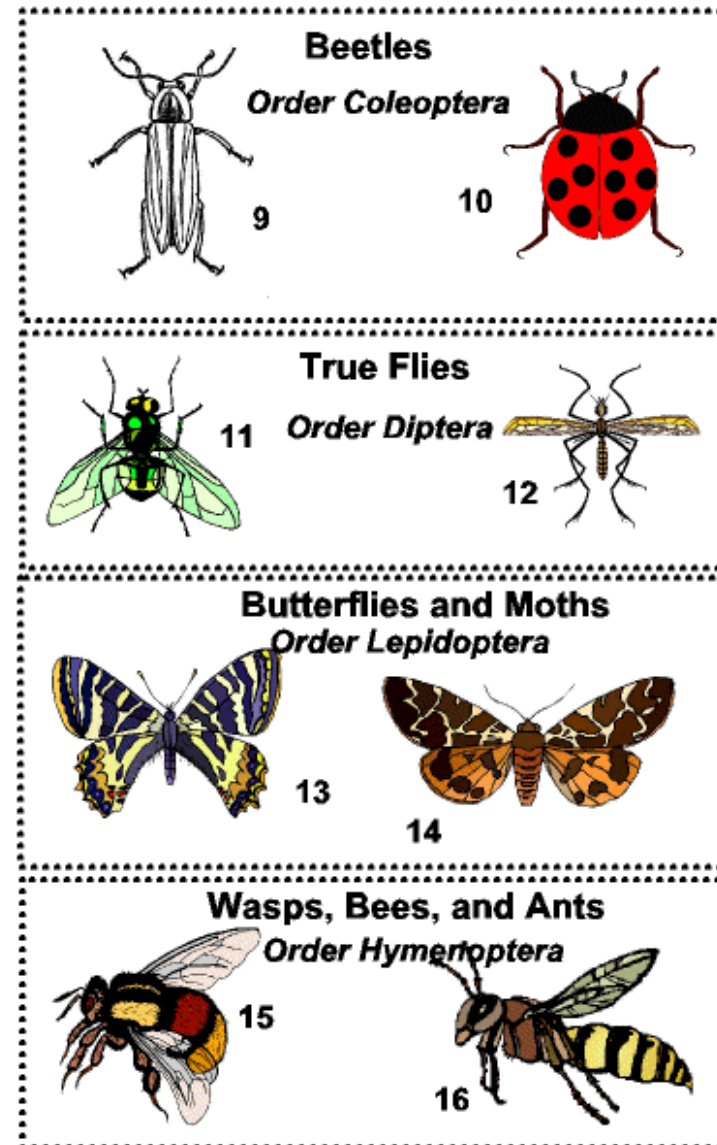
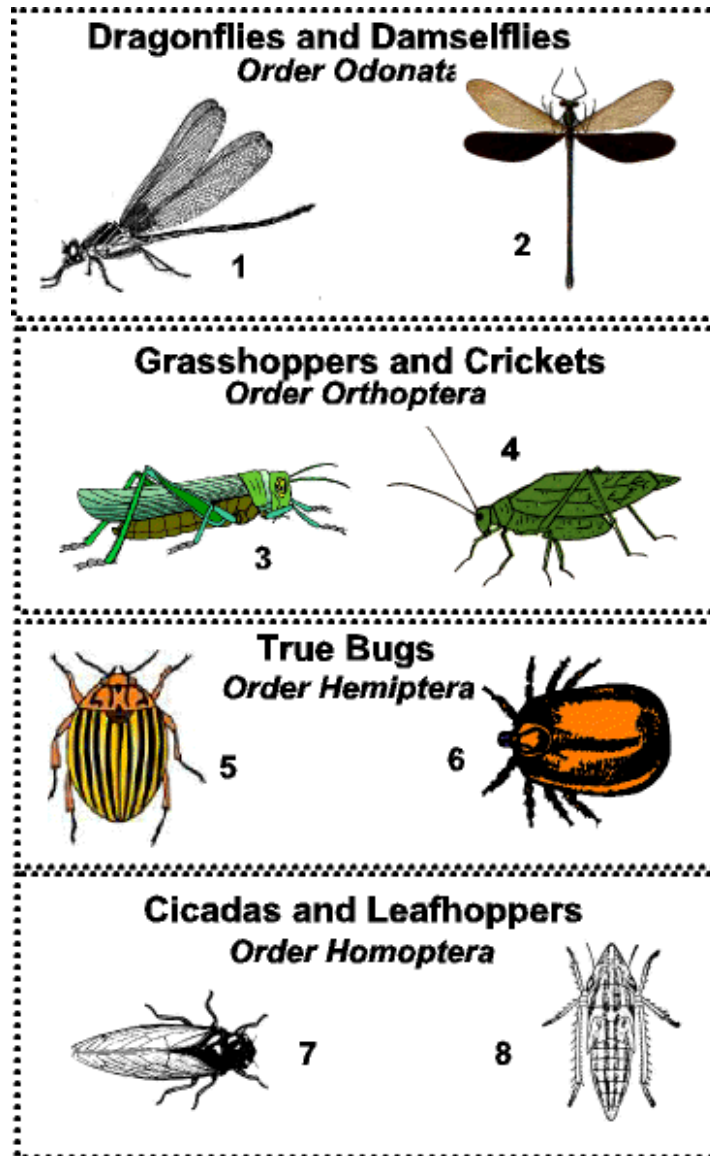
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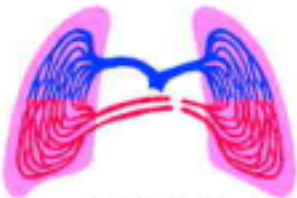



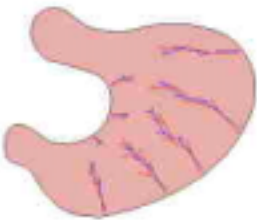



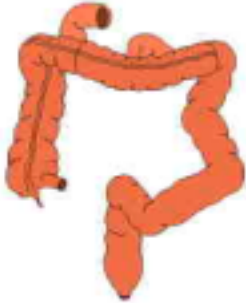



Describe how the arthropods are different from each other.

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## INSECTS



## LIFE CYCLE - HUMAN BIOLOGY (3A)

 <p><b>LUNGS</b></p>	 <p><b>DIAPHRAGM</b></p>	 <p><b>KIDNEYS</b></p>
 <p><b>LIVER</b></p>	 <p><b>STOMACH</b></p>	 <p><b>SMALL INTESTINES</b></p>
 <p><b>PANCREAS</b></p>	 <p><b>GALLBLADDER</b></p>	 <p><b>LARGE INTESTINES</b></p>
 <p><b>HEART</b></p>	 <p><b>CEREBRUM</b></p>	 <p><b>CEREBELLUM</b></p>

## LIFE CYCLE - HUMAN BIOLOGY (3A)

**PROBLEM:** How can you determine what is going on inside your body?

**PREDICTION:**

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**PROCEDURE:** mirrors, stethoscope, bag of bones

Look at the following parts of your body and see if you can determine what it is telling you about the inside. Describe what you see and try and determine the body system it belongs to. Consult reference material.

PART OF BODY	DESCRIBE WHAT HAPPENS	PART OF WHAT SYSTEM
1. Movement of chest		
2. Nails		
3. Pulse		
4. Fold under eye		
5. Underside of tongue		
6. Mid back		
7. Skin		
8. Arm, flex		
9. arm, bend with no force		
10. hair		

**CONCLUSIONS:** Is there a relationship between the external part of the human body and the internal parts? Which systems does our body reflect the greatest?

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**LIFE CYCLE - HUMAN BIOLOGY (3A)**  
**POST**

**RESPIRATORY SYSTEM**

USING THE WORDS IN THE DIAGRAM, EXPLAIN HOW THE RESPIRATORY SYSTEM FUNCTIONS OR WORKS.

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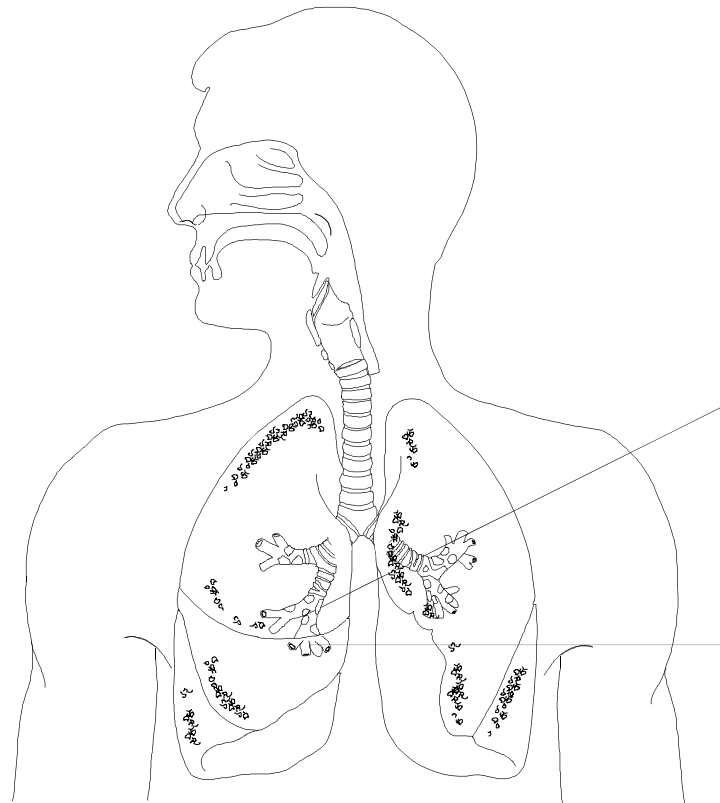
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**VOCABULARY**

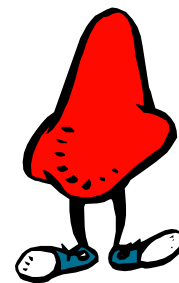
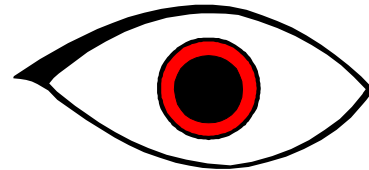
OXYGEN  
CARBON DIOXIDE  
PHARYNX  
LARYNX  
TRACHEA  
BRONCHI  
LUNG  
AIR SACS  
CAPILLARIES





## LIFE CYCLE - HUMAN BIOLOGY (3B)

## RESEARCH TOPIC: How do the senses work?

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is a vertical margin line on the left side, creating a narrow left margin. The paper appears to be from a notebook or a standard ruled sheet of paper.

## LIFE CYCLE - HUMAN BIOLOGY (3B)

**PROBLEM:** How do we taste?

**PREDICTION:**

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**PROCEDURE:** There are two experiments in this lab. Follow directions for each.

Experiment 1. **MATERIALS:** sugar cubes, towels

Dry your tongue with a towel. Put a sugar cube on your tongue. Can you taste it? Explain.

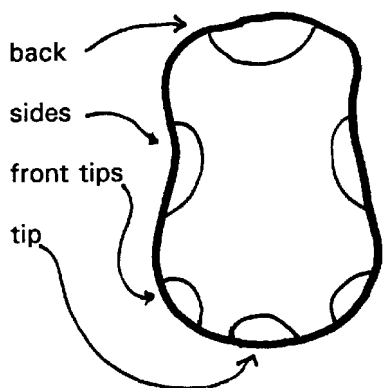
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Experiment 2. **MATERIALS:** sugar + water (sweet), vinegar (sour), salt + water (salty), baking soda + water (bitter), cotton swabs, small containers, paper cups

Dip a cotton swab into a solution of each item and find out which area of your tongue has the sweetest, sourest, and saltiest sensation. Sip water after each item. Do this experiment carefully.

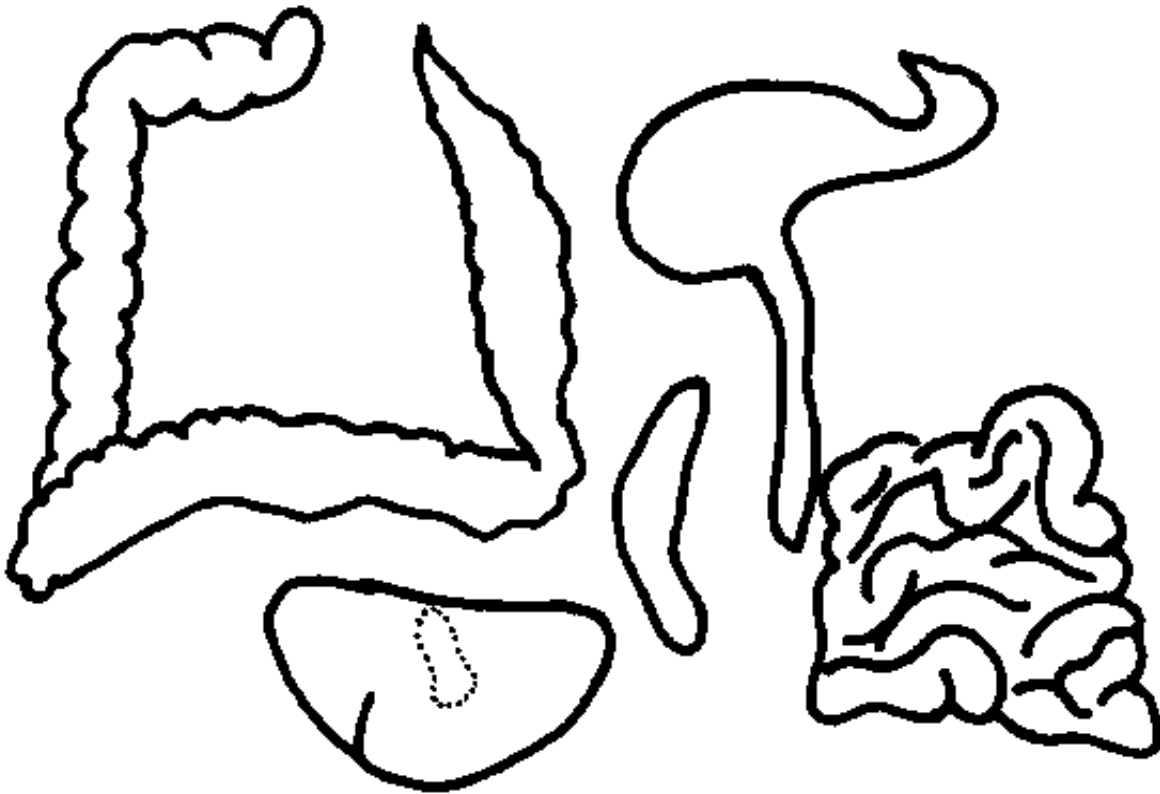
	salt (salt)	sour (vinegar)	sweet (sugar)	bitter (baking) (soda)
area of my tongue where I sensed the taste				
area of my partner's tongue				

**CONCLUSION:** In the diagram below, fill in the type of tastes your tongue sensed next to the four areas marked.



BACK	
SIDES	
FRONT TIPS	
TIP	

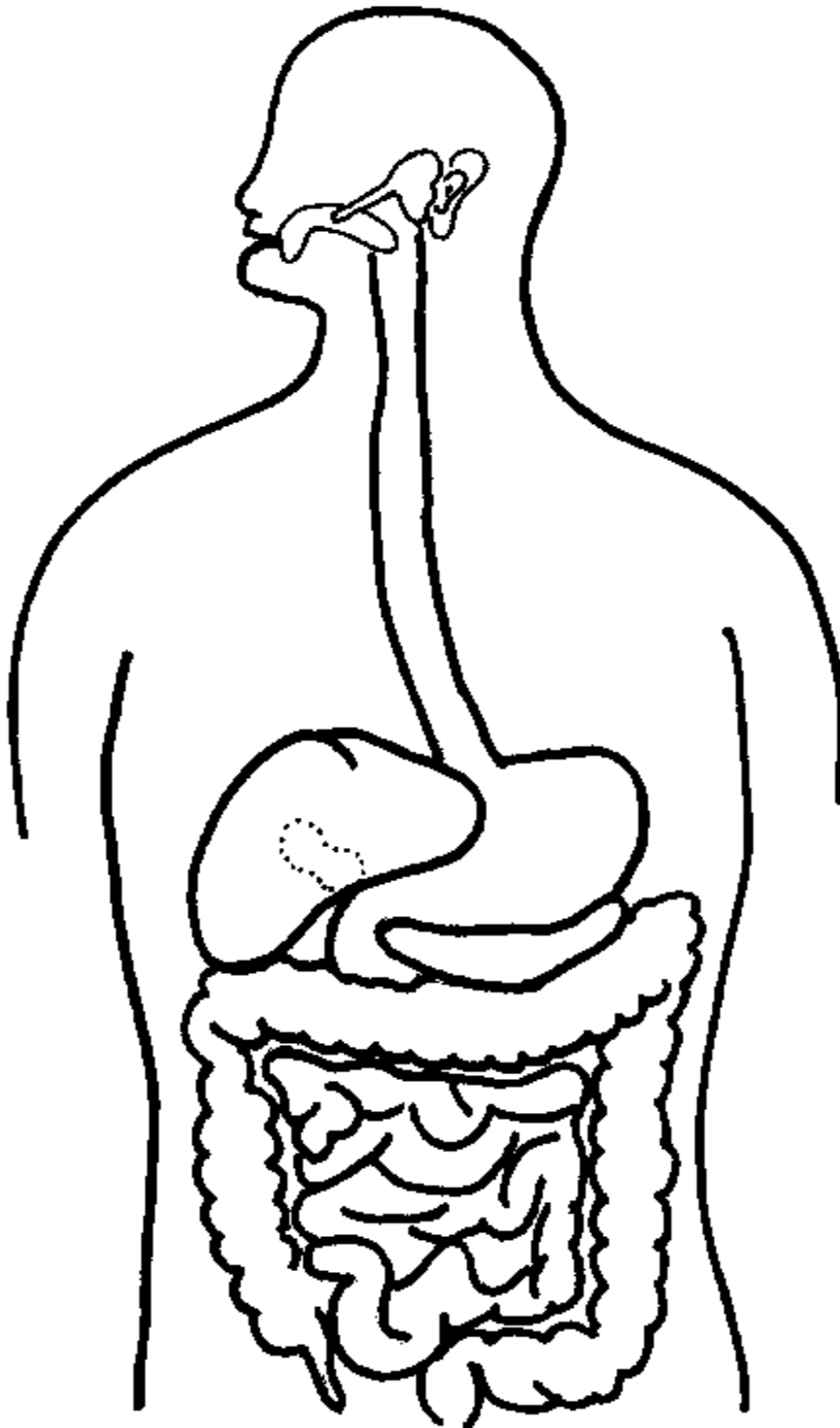
**LIFE CYCLE - HUMAN BIOLOGY (3B)**  
**POST**



**THE ORGANS OF THE DIGESTIVE SYSTEM ARE:**

<b>NUMBER</b>	<b>ORGAN NAME</b>
1.	
2.	
3.	
4.	
5.	

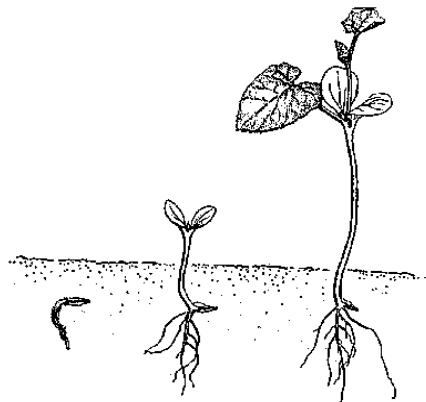
LIFE CYCLE - HUMAN BIOLOGY (3B)  
POST



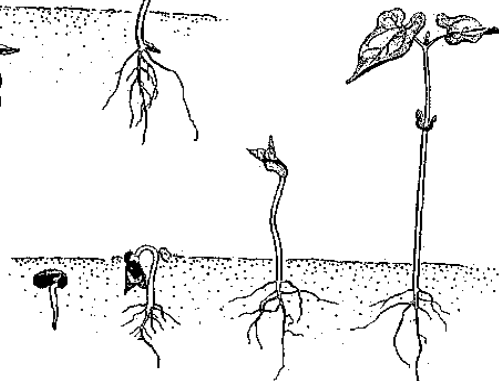
**LIFE CYCLE - PLANTS (3A)**  
**PRE**

**DESCRIBE THE DIFFERENCES IN  
GERMINATION OF THE 4 SEEDS**

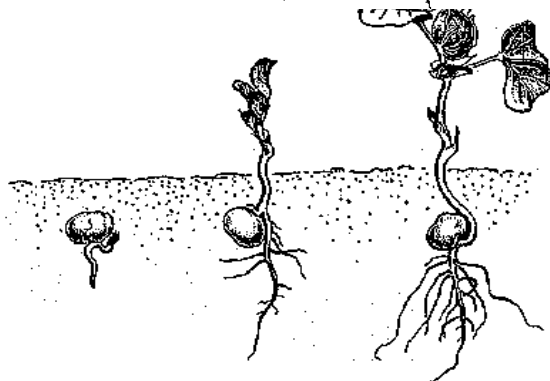
squash



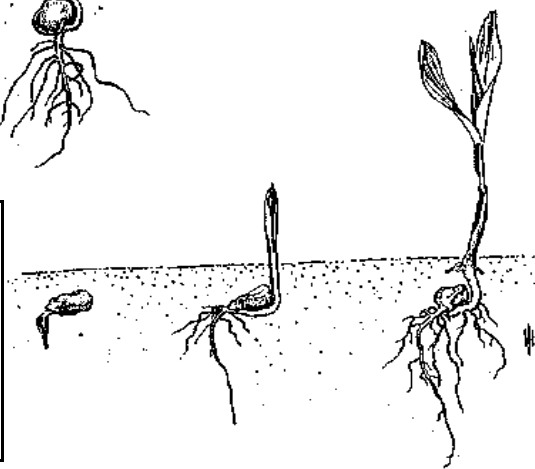
stringbean



pea



corn



## LIFE CYCLE - PLANTS (3A)

**PROBLEM:** Do plants need sun and water to live?

**PREDICTION:**

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**MATERIALS:** 4 plants, 2 cans

**PROCEDURE:** Record a description of your 4 plants before you start the experiment, then place the plants where they belong.

PLANT A:

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PLANT B.

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PLANT C.

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PLANT D.

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RECORD OF EXPERIMENT				
	A	B	C	D
1st Day				
2nd Day				
5th Day				
8th Day				
14th Day				

**CONCLUSION:** Summarize your results.

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## LIFE CYCLE - PLANTS (3B)

**PROBLEM:** How can you detect plant cellulose in a product?

**PREDICTION:** \_\_\_\_\_

**MATERIALS:** cellulose samples, microscope

**PROCEDURE:** Look at the samples at your table. Describe the characteristics that you think connect the sample with plants. Draw your specimen.

SAMPLE	DRAWING	CHARACTERISTICS

**CONCLUSION:** Are there any characteristics that can help you determine if a product is made from a plant? Explain.

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## LIFE CYCLE - PLANTS (3B) POST LAB

Using at least six of the key words listed below write a paragraph about why plants are important. Use reference material or the Internet to find information.

cash crops  
soil conservation  
photosynthesis  
food  
water run off

shelter  
reduce wind  
reduce noise  
beautiful  
raw materials

[illegible]



## WHAT IS MY BIOME?



## LIFE CYCLE - NATURAL ENVIRONMENT (3A)

**PROBLEM:** Do geographic biomes have certain organisms that live in that specific area (endemic population)?

**PREDICTION:**

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**MATERIALS:** Animal Inflatable Globes

Look at the inflatable globe and locate the different biomes listed on the lab sheet. Consult reference material your teacher may have and determine which animals or plants live in that specific biome. List them below.

BIOME	ORGANISMS FOUND
TUNDRA	
DESERT	
TROPICAL FOREST, JUNGLE	
FOREST	
PRAIRIE	
MEDITERRANEAN	
MOUNTAIN FLORA AND MOORLAND	
ICE/SNOW	

**CONCLUSION:** Do specific organisms live in specific areas? Give two examples.

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## **LIFE CYCLE - NATURAL ENVIRONMENT (3A)**

### **POST**

1. Locate where you live. State what type of vegetation you live in.

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Does the map correctly reflect the vegetation type? Explain.

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2. What is the vegetation in the capitol of our country. Name the capital and then write down the vegetation?

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3. The cornbelt is in the midwest of the United States. What type of vegetation does the map refer this to?

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4. What is the difference between a warm and cold desert?

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5. Canada is mainly what vegetation type?

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6. Where is there little or not vegetation according to this map.

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7. Name all the forests.

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8. New York State is in what type of vegetation?

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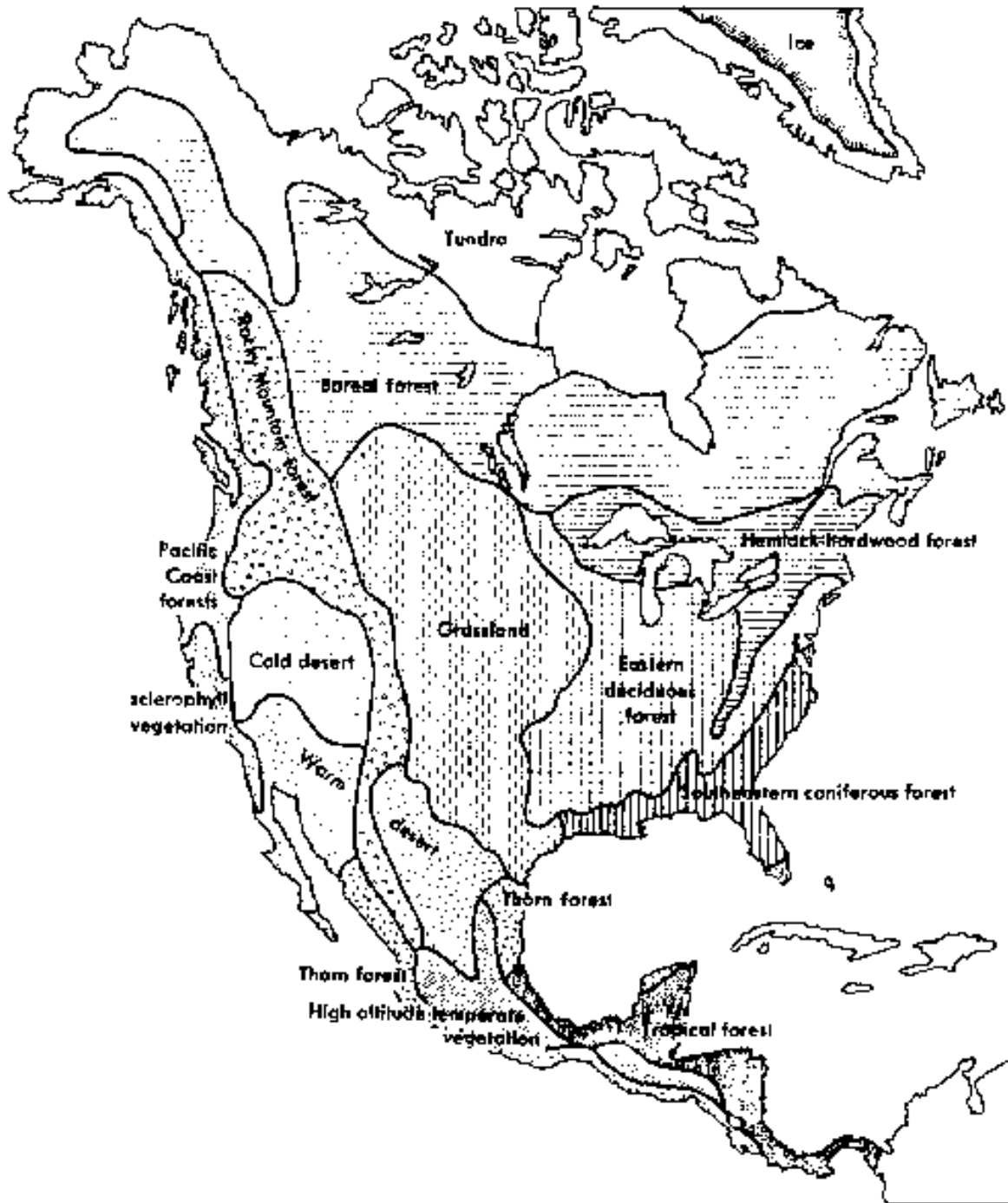
9. Nevada is in what type of vegetation?

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10. Where are the Redwood Forests located (in what vegetational biome)?

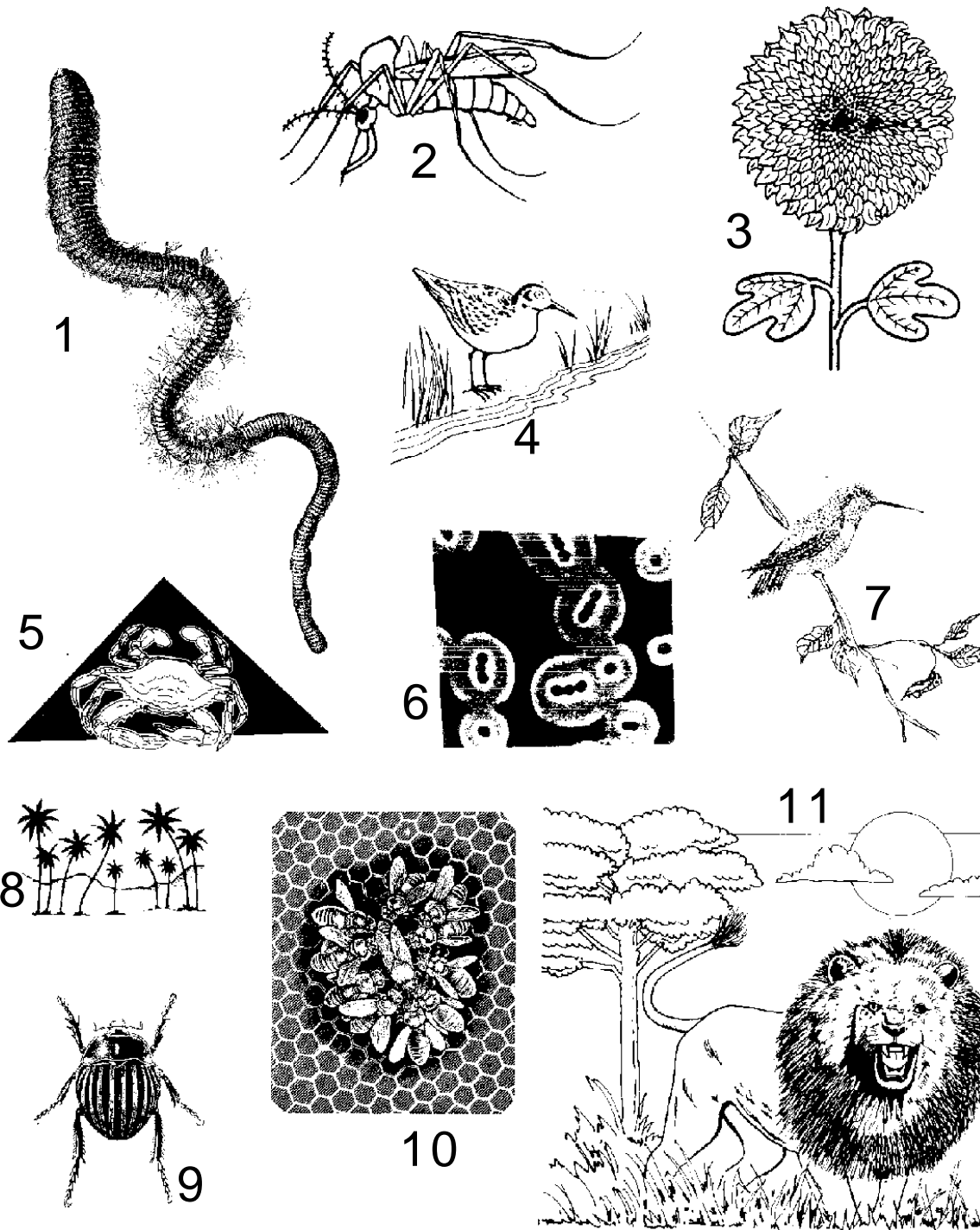
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**LIFE CYCLE - NATURAL ENVIRONMENT (3A)**  
**POST**



## LIFE CYCLE - NATURAL ENVIRONMENT (3B)

PRE



## LIFE CYCLE - NATURAL ENVIRONMENT (3B)

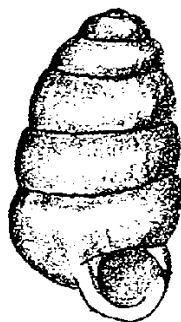
**PROBLEM:** Can you determine how a gastropod eats?

**PREDICTION:**

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**MATERIALS:** package of shells

Determine how the specimens differ by comparing them with the pictures below. State whether you think the shell came from a carnivore or herbivore.



1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_

**CONCLUSION:** How can you determine if a snail is a herbivore or carnivore?

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WAS THE ONCE-LER GREEDY? EXPLAIN.

