

CIRCULATORY SYSTEM REVIEW

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1. What are the basic needs of all living cells?
 2. How do the cells in multicellular organisms get the resources they need to stay alive?
 3. What is the main function of the left side of the human heart?
 4. What is the main function of the right side of the human heart?
 5. What is the function of the red blood cells?
 6. What are the main kinds of blood vessels and what functions do they perform?
 7. Describe what happens when blood flows through the lungs.
 8. Describe what happens when blood in capillaries flows past cells.
1. What are the basic needs of all living cells?
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 8. Describe what happens when blood in capillaries flows past cells.

THE DISASSEMBLY LINE REVIEW

1. Why do people eat food?
2. What happens to food in the digestive system?
3. Describe the path taken by food as it passes through the digestive system.
4. Explain what happens to food at each place in the digestive system.
5. How does digested food get to cells?
6. Why do people need kidneys?
7. Describe how kidneys work.

THE DISASSEMBLY LINE REVIEW

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SUPPORT-SYSTEM QUIZ

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The _____ is part of the _____ system.

The _____ is located between the _____

and the _____, and its function is to _____

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The _____ is located between the _____

and the _____, and its function is to _____

1. Artery
2. Large intestine
3. Lung
4. Mouth and teeth
5. Kidney
6. Esophagus
7. Left side of the heart
8. Right side of the heart
9. Stomach
10. Small intestine
11. Colon
12. Bladder

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CELERY EXPERIMENT A

Experimental Design

Design an experiment to get information about rootless celery and water.

The materials available to you include

- 2 Stalks of celery with leaves 1 Vial holder
- 2 Stalks of celery without leaves • Water
- 4 Vials • Measurement tools

While you work on your experimental design, think about these three things.

- Leaves might affect how celery interacts with water.
- The mass of the celery might change.
- The volume of water in the vial might change.

Question

Plan

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Investigation 2: Vascular Plants
 No. 4—Notebook Sheet

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Investigation 2: Vascular Plants
 No. 4—Notebook Sheet

CELERY EXPERIMENT B CELERY EXPERIMENT B

Data

Data

Conclusions

Conclusions

RESPONSE SHEET—VASCULAR PLANTS

Alexa wrote in her science notebook,

Plants and people are a lot alike because they both have circulatory systems.

When Gary read that sentence, he said,

That's not right, but I think I know what you mean.

What do you think Gary told Alexa about plants and people?

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Investigation 2: Vascular Plants
No. 6—Notebook Sheet

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Investigation 2: Vascular Plants
No. 6—Notebook Sheet

MAKING-FOOD EXPERIMENT A

Question

Plants produce food. What is that food made of?

Experimental Design

Five-hundred grams of bean seeds were planted in each of six containers filled with 10,000 grams of sand. Record the conditions for each of the experiments in the table below.

Data

After 3 weeks, Paco and Eva collected, dried, and weighed the bean plants. They dried and weighed the sand. Record their data in the table below.

	Water	Light	O ₂	CO ₂	N ₂
Experiment A					
Experiment B					
Experiment C					
Experiment D					
Experiment E					
Experiment F					

	Bean starting mass (g)	Bean ending mass (g)	Bean change of mass (g)	Sand starting mass (g)	Sand ending mass (g)	Sand change of mass (g)
Experiment A						
Experiment B						
Experiment C						
Experiment D						
Experiment E						
Experiment F						

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Investigation 3: Sugar and Cells
No. 7—Notebook Sheet

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Investigation 3: Sugar and Cells
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MAKING-FOOD EXPERIMENT B

MAKING-FOOD EXPERIMENT B

Results

- Do plants gain mass when they have no water?
- Do plants gain mass when they have no light?
- Do plants gain mass when they have no nitrogen?
- Do plants gain mass when they have no oxygen?
- Do plants gain mass when they have no carbon dioxide?
- Do plants gain mass from the sand they grow in?
- What variables must be present for plants to make food?
- Where does the mass of the produced food come from?

Conclusions

Review the experiment question. Write a conclusion that provides an answer to the question. Use Paco and Eva's data and results to support your conclusions.

Results

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ACTIVATING YEAST

What does yeast need in order to become active?

- Get two 1-liter zip bags. Label one bag "cookie."
- Put two level 5-mL spoons of yeast into each zip bag.
- Use a syringe to put 50 mL of hot water in each bag.
- Put two animal crackers in the "cookie" bag and nothing in the other bag.
- Seal the bags most of the way across. Press the air out of the bags. Seal the bags tightly.

Zoo Parade Cookies

Ingredients: Wheat flour, sugar, partially hydrogenated vegetable shortening, whole eggs, butter, high-fructose corn syrup, salt, vanilla, baking soda, whey.

Choco-Chunk Cookies

INGREDIENTS: Wheat flour, sugar, sweet chocolate, corn syrup, partially hydrogenated vegetable shortening, nonfat milk, cornstarch, invert syrup, vanilla, pectin, baking soda, salt, citric acid, caramel color.

Big Bite Snaps

Ingredients: Unbleached wheat flour, sugar, milk chocolate, partially hydrogenated vegetable shortening, whole eggs, brown sugar, nonfat milk, butter, baking soda, egg whites, vanilla, salt.

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Big Bite Snaps

Ingredients: Unbleached wheat flour, sugar, milk chocolate, partially hydrogenated vegetable shortening, whole eggs, brown sugar, nonfat milk, butter, baking soda, egg whites, vanilla, salt.

Package labels list the ingredients in order from most to least by quantity. What two ingredients are present in the greatest quantity in

Zoo Parade Cookies?

Choco-Chunk Cookies?

Big Bite Snaps?

What ingredients are in all three cookies?

What ingredients are unfamiliar to you?

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Big Bite Snaps?

What ingredients are in all three cookies?

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RESPONSE SHEET—SUGAR AND CELLS

Brian was reviewing how cells get energy. He wrote in his notebook,

Plant cells get energy from the Sun. Animal cells get energy from food.

Elana said,

That's part of the story, but there's more.

What do you think Elana would explain to Brian about how cells get energy?

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SUGAR TEST A

Question

What question will you attempt to answer?

Materials

What cereals will you test?

What materials and tools will you use?

Plan

Write the plan for your experiment.

SUGAR TEST A

Question

What question will you attempt to answer?

Materials

What cereals will you test?

What materials and tools will you use?

Plan

Write the plan for your experiment.

SUGAR TEST B..... SUGAR TEST B.....

Data

Food tested	Amount of CO ₂ in 10 min.	Amount of CO ₂ in 20 min.
Sugar (control)		

Data

Food tested	Amount of CO ₂ in 10 min.	Amount of CO ₂ in 20 min.
Sugar (control)		

Results and Conclusions

Results and Conclusions