

7th Grade Unit 1 Checkpoint Assessment – 56 pts

Multiple Choice - 1 pt ea

Identify the choice that best completes the statement or answers the question.

- _____ 1. The conversion factor for changing one unit of length to another in the metric system is a multiple of:
- 3.
 - 10.
 - 12.
 - 5,280.

_____ 2.



The downward curve of water in a graduated cylinder is called:

- a meniscus.
 - a flask.
 - a cylinder bubble.
 - an air pocket.
- _____ 3. Which of the following statements about theories is CORRECT?
- Theories are accepted as absolute truth.
 - Theories are the best explanation for something at this point in time.
 - Theories and hypotheses are the same thing.
 - Even with new evidence, a theory can never be changed.

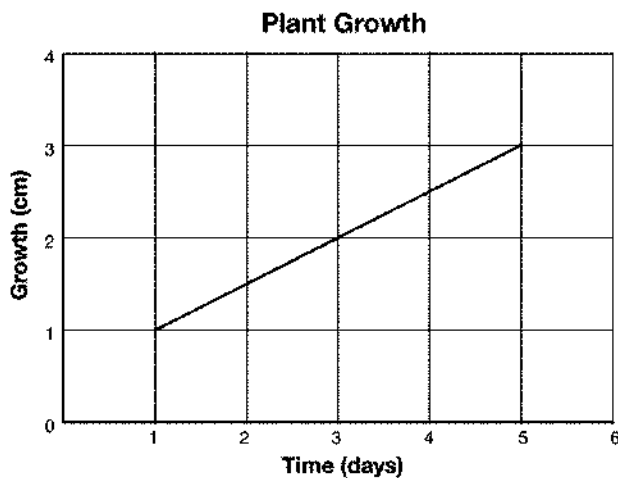
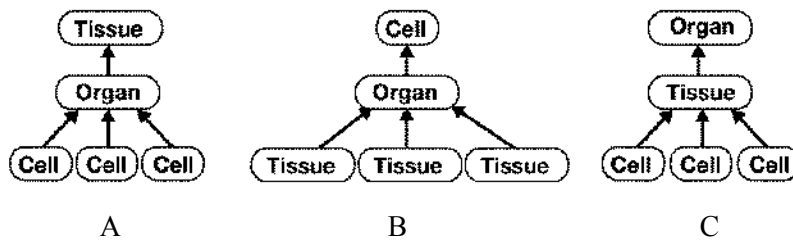


Figure 1-1A

- _____ 4. The plant growth graph in Figure 1-1A shows a(n):
- direct relationship.
 - inverse relationship.
 - variable relationship.
 - None of the above

Name: _____ Block: _____ Date: _____

- _____ 5. Over several weeks, students calculated the mass of a plant. Each week they observed that the plant's mass increased. They concluded that _____ had occurred.
- reproduction
 - growth
 - homeostasis
 - a stimulus
- _____ 6. Which of the following is an **organism**?
- Your heart
 - A catfish
 - A flock of birds
 - Muscle tissue



- _____ 7. Which diagram shows the correct **levels of organization** in a multicellular organism?
- A
 - B
 - C
 - None of the above
- _____ 8. When the body fights off an infection its normal temperature may increase. When this happens, we know a disruption in _____ has occurred.
- homeostasis
 - cell division
 - living systems
 - reproduction
- _____ 9. Of the following examples, which best shows a **response** to a **stimulus**?
- You sneeze when you get pepper up your nose.
 - Your body uses energy from the food you eat.
 - You are much larger in size than when you were born.
 - Your heart is made up of specialized cells.
- _____ 10. The process of classifying and identifying living things is called:
- photosynthesis.
 - Linnaeusism.
 - taxonomy.
 - filing.
- _____ 11. Why are organisms given scientific names?
- To differentiate between living and nonliving animals
 - To make their names more difficult to understand

Name: _____ Block: _____ Date: _____

- c. To use more descriptive Latin and Greek words
- d. To allow scientists from all over the world who may speak different languages to use the same name for an organism

- _____ 12. You discover a living organism that is **multicellular**, a **consumer** and is made up of **eukaryotic cells**. You would classify this organism in the Kingdom:
- a. Archaeobacteria or Eubacteria.
 - b. Plantae.
 - c. Animalia.
 - d. Linnaeus.
- _____ 13. If “quercus” is the genus name and “rubrus” is the species name for a red oak tree, which is the most correct written form of the red oak tree’s scientific name?
- a. *rubrus quercus*
 - b. *Rubrus quercus*
 - c. *Quercus rubrus*
 - d. *Quercus Rubrus*

Use the dichotomous key below to identify these different species of birds.

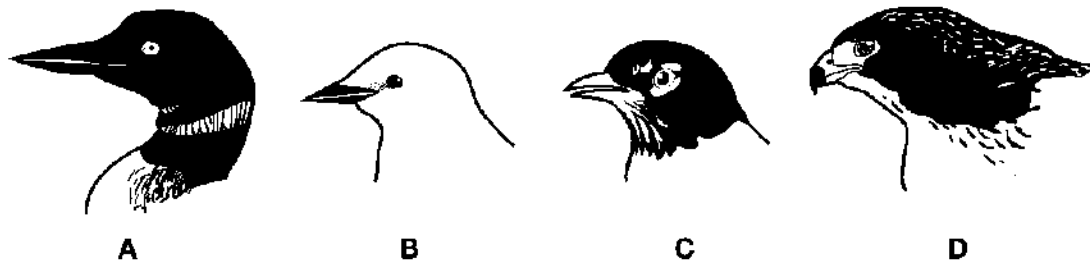


Figure 3-1A

- 1. Head dark-colored.....go to step 2
 - Head light-colored.....Scissor-tailed flycatcher
 - 2. Beak straight.....go to step 3
 - Beak curved.....Red tailed hawk
 - 3. Beak dark-colored.....Common loon
 - Beak light-colored.....American robin
- _____ 14. Which bird in Figure 3-1A is the **Red tailed hawk**?
- a. A
 - b. B
 - c. C
 - d. D
- _____ 15. Which bird in Figure 3-1A is the **Common loon**?
- a. A
 - b. B
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- _____ 16. A(n) _____ is the **simplest** form of matter.
- Cell
 - Element
 - Molecule
 - compound
- _____ 17. Water supports life for all the following reasons EXCEPT:
- it has a high specific heat.
 - it stays liquid at a wide range of temperatures.
 - it is a poor solvent.
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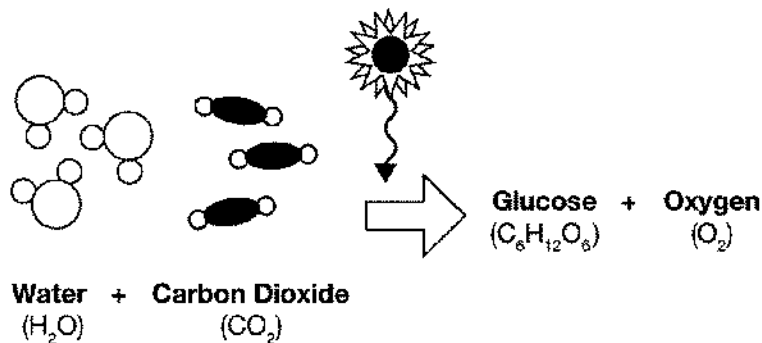


Figure 4-1A

- _____ 18. Figure 4-1A shows a chemical reaction. In this chemical reaction, glucose is:
- a product.
 - a reactant.
 - a form of energy.
 - a lipid.
- _____ 19. Most of the compounds that make up life contain the element:
- sulfur.
 - phosphorus.
 - carbon.
 - oxygen.
- _____ 20. _____ are energy-rich compounds that include fats, oils, and waxes.
- Proteins
 - Sugars
 - Nucleic acids
 - Lipids
- _____ 21. _____ are energy-rich compounds, such as starch, glucose, and sucrose.
- Proteins
 - Acids
 - Carbohydrates
 - Water molecules

Name: _____ Block: _____ Date: _____

- _____ 22. _____ are made from smaller molecules called amino acids.
- a. Proteins
 - b. Carbohydrates
 - c. Lipids
 - d. Starches

- _____ 23. Foods such as _____ contain starch.
- a. eggs and meat
 - b. peanut butter, nuts, and beans
 - c. rice, potatoes, and bread
 - d. milk, cheese, and yogurt

- _____ 24. One of the functions of enzymes in the body is to:
- a. store energy.
 - b. insulate.
 - c. make up the outer membrane of a cell.
 - d. speed up the digestion process.

Completion - 1 pt

Complete each statement.

Write the correct term to complete the sentence.

25.

DNA is an example of a(n) _____, that contains the information cells need to make proteins.

Short Answer -

26. List the steps that scientists use to answer questions or solve problems. You may draw arrows connecting the steps. **5 pts**

Name: _____ Block: _____ Date: _____

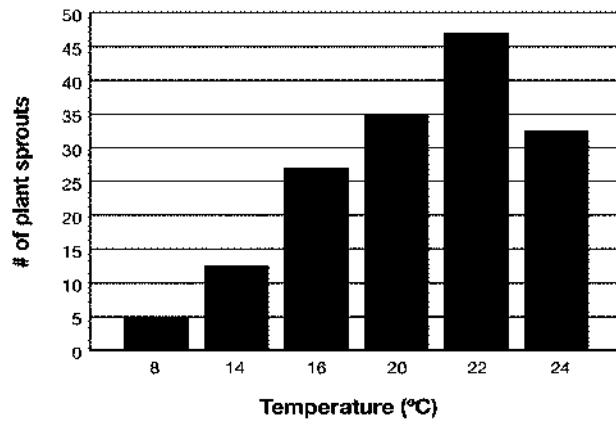


Figure 1-1 shows the effect of temperature on plant growth.

27. According to Figure 1-1, what temperature is best for the plant growth? Explain why you chose that temperature. **2 pts**

28. What is the **independent variable** for the graph in Figure 1-1? **1 pt**

29. What is the **dependent variable** for the graph in Figure 1-1? **1 pt**

30. What type of **control variables** would be necessary for a successful experiment to produce the graph in Figure 1-1? List at least three. **3 pts**

Name: _____ Block: _____ Date: _____

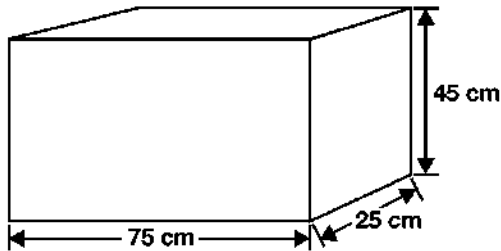
31. One system of classification groups all living things into one of six kingdoms.

- a. Name the 6 kingdoms used to classify living organisms. – **6 pts**
- b. Name 1 example organism for each kingdom. – **6 pts**

32. List 5 characteristics of ALL living things. **5 pts**

Problem

33.



You just got a new fish tank and you need to determine the maximum volume that the tank can hold before you set it up. The dimensions of your tank are $75\text{ cm} \times 25\text{ cm} \times 45\text{ cm}$. What is the volume of your new tank? Show how you got your answer. **2 pts**

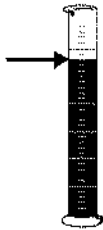
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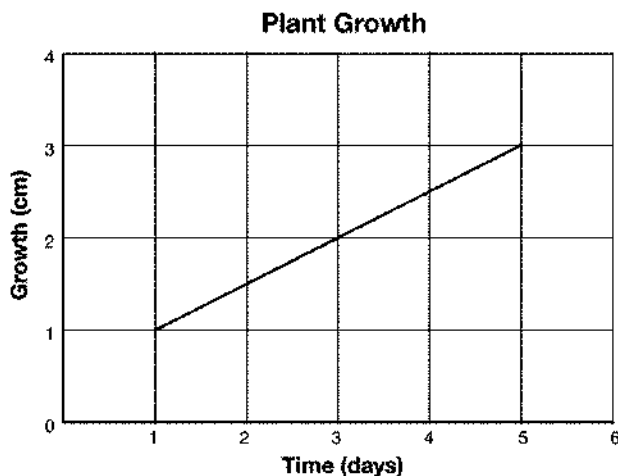


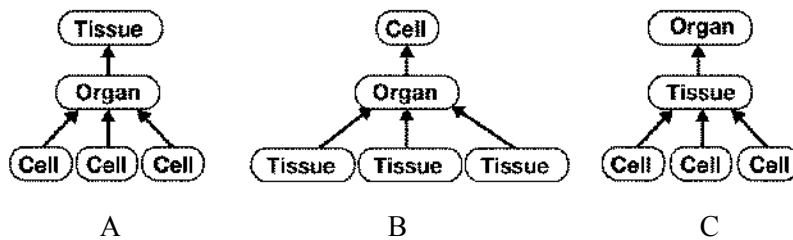
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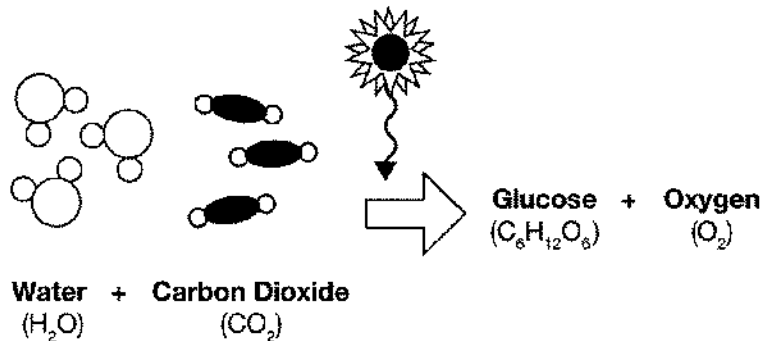


Figure 4-1A

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- a product.
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 - a lipid.
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- sulfur.
 - phosphorus.
 - carbon.
 - oxygen.
- D 20. _____ are energy-rich compounds that include fats, oils, and waxes.
- Proteins
 - Sugars
 - Nucleic acids
 - Lipids
- C 21. _____ are energy-rich compounds, such as starch, glucose, and sucrose.
- Proteins
 - Acids
 - Carbohydrates
 - Water molecules

Name: _____ Block: _____ Date: _____

- A 22. _____ are made from smaller molecules called amino acids.
- Proteins
 - Carbohydrates
 - Lipids
 - Starches

- C 23. Foods such as _____ contain starch.
- eggs and meat
 - peanut butter, nuts, and beans
 - rice, potatoes, and bread
 - milk, cheese, and yogurt

- D 24. One of the functions of enzymes in the body is to:
- store energy.
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Completion - 1 pt

Complete each statement.

Write the correct term to complete the sentence.

25.

DNA is an example of a(n) nucleic acid, that contains the information cells need to make proteins.

Short Answer -

26. List the steps that scientists use to answer questions or solve problems. You may draw arrows connecting the steps. **5 pts**

- 1. Make observations or research something.**
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- 4. Test the hypothesis with an experiment.**
- 5. Draw conclusions based on the test.**

Name: _____ Block: _____ Date: _____

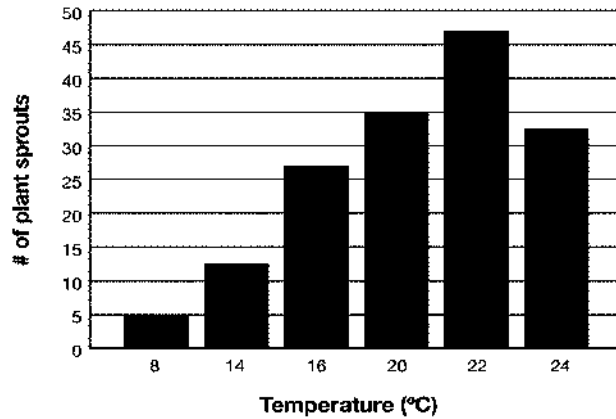


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27. According to Figure 1-1, what temperature is best for the plant growth? Explain why you chose that temperature. **2 pts**

22°C, because the most plants sprouted at that temperature.

28. What is the **independent variable** for the graph in Figure 1-1? **1 pt**

Temperature.

29. What is the **dependent variable** for the graph in Figure 1-1? **1 pt**

Number of plant sprouts.

30. What type of **control variables** would be necessary for a successful experiment to produce the graph in Figure 1-1? List at least three. **3 pts**

**Same type of plants
same amount of water
same soil
same amount of light
same location, etc.**

Name: _____ Block: _____ Date: _____

31. One system of classification groups all living things into one of six kingdoms.

- Name the 6 kingdoms used to classify living organisms. – **6 pts**
- Name 1 example organism for each kingdom. – **6 pts**

Kingdom Plantae - grass, tree, algae

Kingdom Animalia - bird, fish, reptile, insect, mammal

Kingdom Protista - slime molds, euglenoids, amoeba, paramecium

Kingdom Fungi - yeast, mushrooms, bread mold,

Kingdom Eubacteria - true bacteria; many infections and diseases are caused by bacteria

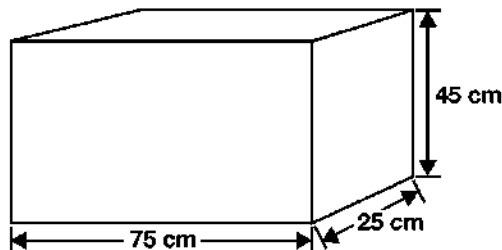
Kingdom Archaeobacteria - primitive bacteria found in hot springs or deep sea vents Thermophiles, Halophiles, etc

32. List 5 characteristics of ALL living things. **5 pts**

- 1. Reproduce**
- 2. Respond to stimuli**
- 3. Use energy**
- 4. Are made of cells**
- 5. Grow and develop**
- 6. Exchange Gases**
- 7. Excrete Wastes**

Problem

33.



You just got a new fish tank and you need to determine the maximum volume that the tank can hold before you set it up. The dimensions of your tank are $75\text{ cm} \times 25\text{ cm} \times 45\text{ cm}$. What is the volume of your new tank? Show how you got your answer. **2 pts**

$84,375\text{ cm}^3$

Volume = length $\times$ width $\times$ height

Volume = $75\text{ cm} \times 25\text{ cm} \times 45\text{ cm} = 84,375\text{ cm}^3$

Name: _____ Block: _____ Date: _____

7th Grade Unit 1 Checkpoint Assessment Answer Section

MULTIPLE CHOICE

1. ANS: B	PTS: 1	DIF: basic	REF: section 1.1 STANDARD: 5.1.8.A.2
2. ANS: A	PTS: 1	DIF: basic	REF: section 1.1 STANDARD: 5.1.8.A.2
3. ANS: B	PTS: 1	DIF: basic	REF: section 1.2 STANDARD: 5.1.8.A.3
4. ANS: A	PTS: 1	DIF: intermediate	REF: section 1.3 STANDARD: 5.1.12.D.2
5. ANS: B	PTS: 1	DIF: intermediate	REF: section 2.1 STANDARD: 5.3.4.A.1
6. ANS: B	PTS: 1	DIF: intermediate	REF: section 2.1 STANDARD: 5.3.4.A.1
7. ANS: C	PTS: 1	DIF: intermediate	REF: section 2.2 STANDARD: 5.3.8.A.1
8. ANS: A	PTS: 1	DIF: advanced	REF: section 2.2 STANDARD: 5.3.6.A.1
9. ANS: A	PTS: 1	DIF: advanced	REF: section 2.2 STANDARD: 5.3.4.A.1
10. ANS: C	PTS: 1	DIF: basic	REF: section 3.1 STANDARD: 5.1.8.A.1
11. ANS: D	PTS: 1	DIF: intermediate	REF: section 3.1 STANDARD: 5.1.8.A.1
12. ANS: C	PTS: 1	DIF: advanced	REF: section 3.1 STANDARD: 5.1.8.A.1
13. ANS: C	PTS: 1	DIF: advanced	REF: section 3.1 STANDARD: 5.1.8.A.1
14. ANS: D	PTS: 1	DIF: intermediate	REF: section 3.2 STANDARD: 5.3.4.A.2
15. ANS: A	PTS: 1	DIF: intermediate	REF: section 3.2 STANDARD: 5.3.4.A.2
16. ANS: B	PTS: 1	DIF: basic	REF: section 4.1 STANDARD: 5.3.8.A.1
17. ANS: C	PTS: 1	DIF: intermediate	REF: section 4.1 STANDARD: 5.1.8.A.1
18. ANS: A	PTS: 1	DIF: intermediate	REF: section 4.1 STANDARD: 5.2.6.B.1
19. ANS: C	PTS: 1	DIF: basic	REF: section 4.2 STANDARD: 5.1.8.A.1
20. ANS: D	PTS: 1	DIF: basic	REF: section 4.2 STANDARD: 5.3.8.B.1
21. ANS: C	PTS: 1	DIF: basic	REF: section 4.2 STANDARD: 5.3.8.B.1
22. ANS: A	PTS: 1	DIF: basic	REF: section 4.2 STANDARD: 5.3.8.B.1
23. ANS: C	PTS: 1	DIF: intermediate	REF: section 4.2 STANDARD: 5.3.8.B.1
24. ANS: D	PTS: 1	DIF: intermediate	REF: section 4.2 STANDARD: 5.3.12.A.2

COMPLETION

25. ANS: nucleic acid

PTS: 1 DIF: basic REF: section 4.2 STANDARD: 5.3.12.D.1

SHORT ANSWER

26. ANS:

1. Make observations or research something.
2. Ask a question or state a problem.
3. State a hypothesis.
4. Test the hypothesis with an experiment.
5. Draw conclusions based on the test.

PTS: 1 DIF: basic REF: section 1.2 STANDARD: 5.1.8.A.3

Name: _____ Block: _____ Date: _____

27. ANS:
22°C, because the most plants sprouted at that temperature.
- PTS: 1 DIF: intermediate REF: section 1.3 STANDARD: 5.1.8.B.1
28. ANS:
temperature
- PTS: 1 DIF: intermediate REF: section 1.3 STANDARD: 5.1.8.B.1
29. ANS:
Number of plant sprouts
- PTS: 1 DIF: intermediate REF: section 1.3 STANDARD: 5.1.8.B.1
30. ANS:
Same type of plants, same amount of water, same soil, same amount of light, same location, etc.
- PTS: 1 DIF: intermediate REF: section 1.3 STANDARD: 5.1.8.B.4
31. ANS:
Example answers are given for each kingdom.
- Kingdom Plantae - grass, tree, algae
Kingdom Animalia - bird, fish, reptile, insect, mammal
Kingdom Protista - slime molds, euglenoids, amoeba, paramecium
Kingdom Fungi - yeast, mushrooms, bread mold,
Kingdom Eubacteria - true bacteria; many infections and diseases are caused by bacteria
Kingdom Archaeobacteria - primitive bacteria found in hot springs or deep sea vents Thermophiles, Halophiles, etc
- PTS: 1 DIF: intermediate REF: section 3.1 STANDARD: 5.1.8.A.1
32. ANS:
Answers may vary. Correct answers will include of the following:
All living things:
- | | |
|-----------------------|---------------------|
| 1. Reproduce | 5. Grow and develop |
| 2. Respond to stimuli | 6. Exchange Gases |
| 3. Use energy | 7. Excrete Wastes |
| 4. Are made of cells | |
- PTS: 1 DIF: basic REF: section 2.1 STANDARD: 5.3.4.A.1

PROBLEM

33. ANS:
84,375 cm³
- Volume = length × width × height
- Volume = 75 cm × 25 cm × 45 cm = 84,375 cm³
- PTS: 1 DIF: intermediate REF: section 1.2 STANDARD: 5.2.4.A.3