

**DEPARTMENT OF EDUCATION
SUMMATIVE TEST IN SCIENCE 4**

Name: _____

Score: _____

Grade & Section: _____

Date: _____

TABLE OF SPECIFICATIONS (TOS)

Learning Competencies	Easy (60%) Remember / Understand	Average (30%) Apply / Analyze	Difficult (10%) Evaluate / Create	No. of Items	Item Placement
1. Describe changes in properties of materials when exposed to certain changes in temperature.	4 (Items 1-4)	2 (Items 5-6)	1 (Item 7)	7	1-7
2. Demonstrate ways to minimize harmful changes in materials (e.g., restriction of burning waste).	4 (Items 8-11)	2 (Items 12-13)	1 (Item 14)	7	8-14
3. Identify issues and concerns in the local community and how they could be addressed by science.	4 (Items 15-18)	2 (Items 19-20)	0	6	15-20
TOTAL	12 (60%)	6 (30%)	2 (10%)	20	1-20

SCIENCE 4 SUMMATIVE TEST

Directions: Read each question carefully. Choose the letter of the correct answer and write it on the space before the number.

- ___ 1. What happens to a piece of butter when it is placed in a hot pan?
- A. It freezes
 - B. It melts
 - C. It turns into ash
 - D. It becomes harder
- ___ 2. Which of the following materials turns into ash and smoke when burned?
- A. Water
 - B. Wood
 - C. Glass
 - D. Iron nail
- ___ 3. Liquid water changes into solid ice when it is exposed to what kind of temperature?
- A. Very hot temperature
 - B. Warm temperature
 - C. Very cold temperature
 - D. Normal room temperature
- ___ 4. What physical change occurs when a piece of coal is continuously exposed to fire?
- A. It changes into a white rock.
 - B. It becomes a liquid metal.
 - C. It burns, turns black to gray, and becomes ash.
 - D. It becomes bigger and heavier.
- ___ 5. If you accidentally left your crayons inside a car on a very sunny day, what change will you most likely observe?
- A. The crayons will freeze and crack.
 - B. The crayons will melt and lose their original shape.
 - C. The crayons will turn into gas.
 - D. The crayons will become stronger.
- ___ 6. How is the melting of an ice block different from the burning of a piece of paper?
- A. Both processes produce ash.
 - B. Melting produces a new substance, while burning does not.
 - C. Melting changes only the state (solid to liquid), while burning produces new materials like ash and smoke.
 - D. There is no difference between the two.
- ___ 7. (Difficult) You noticed that people in your neighborhood often burn dried leaves in the afternoon, causing thick smoke. Based on what happens to materials when heated, what is the best scientific reason to stop this practice?
- A. Burning produces harmful gases and ash that pollute the air and affect human health.
 - B. The leaves will just turn back into soil immediately.

- C. The smoke will make the sun shine brighter.
- D. Burning dried leaves produces food for the plants.

___ 8. Which of the following human activities brings a harmful change to the environment?

- A. Planting trees
- B. Burning plastic tires
- C. Sweeping the yard
- D. Segregating garbage

___ 9. Why is the open burning of garbage, such as plastics, strictly prohibited by the law?

- A. Because it makes the surroundings smell like perfume.
- B. Because it produces toxic chemicals and smoke that are dangerous to inhale.
- C. Because it creates a beautiful fire.
- D. Because plastics are too expensive to burn.

___ 10. How should you properly handle reactive materials at home like bleach or muriatic acid?

- A. Leave them open on the dining table.
- B. Play with them using bare hands.
- C. Mix them together to see what happens.
- D. Keep them tightly closed and out of reach of children.

___ 11. Which of the following shows the correct way of minimizing harmful chemical reactions at home?

- A. Putting different chemicals in unlabeled bottles.
- B. Throwing batteries into a fire.
- C. Storing flammable materials away from the stove or fire.
- D. Pouring gasoline near a lighted candle.

___ 12. You saw your younger brother playing near a container of paint thinner. What is the most appropriate action to take?

- A. Ignore him and let him play.
- B. Tell him to open the container.
- C. Quickly take him away from the container and explain that it is dangerous.
- D. Join him in playing with the container.

___ 13. Why is proper waste segregation considered a better practice than open dumping or burning of solid wastes?

- A. Segregation allows materials to decay instantly.
- B. Segregation helps in identifying which ones can be recycled, reused, or composted safely.
- C. Segregation makes burning faster.
- D. Segregation creates more trash in the long run.

___ 14. (Difficult) You want to ensure that no one in your house gets poisoned or harmed by cleaning chemicals. Which of the following is the BEST safety rule to implement?

- A. Hide the chemicals under the bed.
- B. Pour all leftover chemicals into the garden soil.

C. Store all chemical cleaners in their original, labeled containers inside a locked cabinet away from food.

D. Transfer all chemicals into empty drinking water bottles so they look neat.

___ 15. What is a common environmental issue in many communities caused by improper disposal of garbage?

A. Clean and clear rivers

B. Clogged canals and flooding

C. Abundant harvest of crops

D. Fresh air in the streets

___ 16. How does science help community leaders solve the problem of organic waste (like leftover food and dead leaves)?

A. By introducing the process of composting to turn waste into fertilizer.

B. By suggesting to throw them in the ocean.

C. By encouraging people to just burn them.

D. By hiding them inside caves.

___ 17. Which of the following waste materials can be decomposed and used to make compost for plants?

A. Plastic bags

B. Glass bottles

C. Fruit and vegetable peelings

D. Old batteries

___ 18. Why is the buildup of plastic waste in local rivers a major concern?

A. It provides a home for the fish.

B. It makes the river water safe to drink.

C. It blocks the flow of water, causing floods and destroying aquatic life.

D. It acts as a bridge for people to cross.

___ 19. If your barangay produces a lot of empty plastic bottles, how can you apply science to address this issue without harming the environment?

A. Burn them in a vacant lot.

B. Bury them deep in the soil so they disappear.

C. Melt them using a kitchen stove.

D. Collect and recycle them into useful materials like eco-bricks or plant pots.

___ 20. Which of the following scenarios best shows a community using a scientific approach to solve a waste problem?

A. A community that throws their daily trash into a nearby vacant lot.

B. A community that strictly implements "Reduce, Reuse, Recycle" and segregates their trash properly.

C. A community that burns all their garbage every weekend to save space.

D. A community that pays people to dump waste into the river at night.

ANSWER KEY

1. B, 2. B, 3. C, 4. C, 5. B, 6. C, 7. A, 8. B, 9. B, 10. D, 11. C, 12. C, 13. B, 14. C, 15. B, 16. A, 17. C, 18. C, 19. D, 20. B