

Grade 6 Science Summative Assessment (40 Items)

Part I: Matter, Systems & Scientific Inquiry (Items 1–20) | Part II: Plant Reproduction & Animal Classification (Items 21–40)

Section:

Score:

Name: _____

Instructions: Read each question carefully. Write the letter of the correct answer on the underline provided before each number.

PART I: Phase Change, Physical Change, Mixtures & Separation, Fair Testing & Circulatory System

____ 1. What phase change occurs when a liquid turns into gas below its boiling point?

- A. Condensation
- B. Evaporation
- C. Sublimation
- D. Freezing

____ 2. Solid dry ice turning directly into carbon dioxide gas is an example of:

- A. Sublimation
- B. Deposition
- C. Melting
- D. Freezing

____ 3. Which of the following represents a physical change?

- A. Burning wood
- B. Rusting iron
- C. Tearing paper
- D. Baking bread

____ 4. What type of mixture is uniform throughout and appears as a single phase?

- A. Homogeneous
- B. Heterogeneous
- C. Suspension
- D. Coarse mixture

____ 5. Which technique is best for separating sand from water?

- A. Evaporation
- B. Filtration
- C. Magnetism
- D. Chromatography

____ 6. How can you separate iron filings from a mixture with powdered sulfur?

- A. Sieving
- B. Decantation
- C. Magnetic separation
- D. Evaporation

____ 7. What separation method is used to obtain solid salt from saltwater?

- A. Filtration
- B. Evaporation
- C. Decantation
- D. Sieving

____ 8. In a fair test, how many variables should be changed at a time?

- A. Only one
- B. Two
- C. All variables
- D. None

____ 11. What is the primary organ that pumps blood throughout the human body?

- A. Lungs
- B. Brain
- C. Heart
- D. Liver

____ 12. Which blood vessels carry oxygenated blood away from the heart?

- A. Veins
- B. Arteries
- C. Capillaries
- D. Venules

____ 13. What tiny vessels allow gas and nutrient exchange between blood and cells?

- A. Arteries
- B. Veins
- C. Capillaries
- D. Aorta

____ 14. Which blood cells carry oxygen using hemoglobin?

- A. Red blood cells
- B. White blood cells
- C. Platelets
- D. Plasma

____ 15. What blood component helps stop bleeding by forming clots?

- A. Plasma
- B. Platelets
- C. Red cells
- D. White cells

____ 16. How many chambers make up the human heart?

- A. Two
- B. Three
- C. Four
- D. Six

____ 17. Which blood components fight off harmful infections?

- A. White blood cells
- B. Red blood cells
- C. Platelets
- D. Plasma

____ 18. What liquid component makes up more than half of human blood?

- A. Fibrin
- B. Plasma
- C. Hemoglobin
- D. Cytoplasm

____ 19. Water vapor condensing on a cold mirror is what type of change?

- A. Chemical
- B. Physical
- C. Biological
- D. Irreversible

____ 9. What is the factor that a scientist measures or observes during an experiment?

- A. Independent variable
- B. Dependent variable
- C. Controlled variable
- D. Constant factor

____ 10. Why are controlled variables kept constant in an investigation?

- A. To make the test faster
- B. To ensure a fair test
- C. To eliminate measurements
- D. To change outcomes

____ 20. Pouring clear liquid off settled solid particles is called:

- A. Decantation
- B. Filtration
- C. Distillation
- D. Sieving

PART II: Plant Reproduction & Vertebrates and Invertebrates (Items 21–40)

____ 21. What is the male reproductive structure of a flowering plant called?

- A. Pistil
- B. Stamen
- C. Sepal
- D. Petal

____ 22. Which part of the flower produces pollen grains?

- A. Anther
- B. Stigma
- C. Filament
- D. Style

____ 23. The female reproductive organ of a flower is known as the:

- A. Stamen
- B. Pistil (Carpel)
- C. Receptacle
- D. Anther

____ 24. What sticky part of the flower receives pollen during pollination?

- A. Style
- B. Stigma
- C. Ovary
- D. Sepal

____ 25. After fertilization, what flower part typically develops into the fruit?

- A. Ovule
- B. Ovary
- C. Petal
- D. Stigma

____ 26. What structure inside the ovary develops into a seed after fertilization?

- A. Ovule
- B. Anther
- C. Pollen tube
- D. Filament

____ 27. Which process transfers pollen from the anther to the stigma?

- A. Germination
- B. Pollination
- C. Photosynthesis
- D. Respiration

____ 28. Which of the following is an example of natural vegetative propagation?

- A. Growing a potato plant from a tuber eye
- B. Producing seeds through flower pollination
- C. Spore production in mosses
- D. Grafting fruit trees in an orchard

____ 31. What defines all vertebrate animals?

- A. They lay hard-shelled eggs.
- B. They have a backbone or spinal column.
- C. They live exclusively on land.
- D. They have an exoskeleton.

____ 32. Which class of vertebrates is warm-blooded, has feathers, and lays eggs?

- A. Reptiles
- B. Amphibians
- C. Birds (Aves)
- D. Mammals

____ 33. Frogs begin life in water with gills and transition to live on land with lungs. They are:

- A. Reptiles
- B. Amphibians
- C. Fish
- D. Mammals

____ 34. Which group of animals feeds their young with milk produced by mammary glands?

- A. Mammals
- B. Birds
- C. Reptiles
- D. Amphibians

____ 35. Snakes, turtles, and lizards are cold-blooded vertebrates covered in scales. They are:

- A. Amphibians
- B. Reptiles
- C. Mammals
- D. Arthropods

____ 36. What is the major characteristic of all invertebrate animals?

- A. They lack a backbone.
- B. They produce milk for offspring.
- C. They have hollow bones.
- D. They are all warm-blooded.

____ 37. Insects, spiders, and crabs belong to which invertebrate phylum with jointed legs?

- A. Mollusks
- B. Arthropods
- C. Annelids
- D. Cnidarians

____ 38. Soft-bodied invertebrates like snails, clams, and octopuses belong to which group?

- A. Echinoderms
- B. Mollusks
- C. Arthropods
- D. Poriferans

____ 29. Ferns and mosses reproduce without seeds by using tiny structures called:

- A. Bulbs
- B. Spores
- C. Runners
- D. Flowers

____ 30. Strawberries send horizontal stems along the ground to form new plants. These are called:

- A. Tubers
- B. Runners (Stolons)
- C. Rhizomes
- D. Bulbs

____ 39. Earthworms belong to segmented worms known as:

- A. Annelids
- B. Nematodes
- C. Platyhelminthes
- D. Echinoderms

____ 40. Sea stars and sea urchins have spiny skins and radial body symmetry. They are:

- A. Cnidarians
- B. Echinoderms
- C. Mollusks
- D. Arthropods