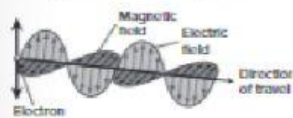


## Revision – term 2 science

1. What does all energy have?

- A size and shape
- B mass and volume
- C the ability to cause change
- D the ability to transport matter

Use the figure below to answer question 2.



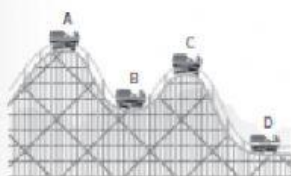
2. Which form of energy is being transmitted in the picture?

- A chemical energy
- B electric energy
- C radiant energy
- D sound energy

3. How do people use the nuclear energy produced from nuclear fission?

- A to produce electric energy
- B to power handheld machines
- C to grow and maintain body cells
- D to cook food in a microwave oven

Use the figure below to answer questions 5 and 6.



4. The figure shows four cars on a roller coaster track. At which point is gravitational potential energy the greatest?

- A point A
- B point B
- C point C
- D point D

5. What happens to the roller-coaster car's energy as it moves from point A to point B?

- A New energy is created.
- B The energy is destroyed.
- C New energy transforms from the car's mass.
- D The energy transforms from one kind to another.

6. Which is true of energy?

- A It cannot be destroyed.
- B It cannot be transmitted.
- C It cannot change matter.
- D It cannot be transformed

7. Which equation shows how work and force are related?

- A  $\text{work} = \text{force} + \text{distance}$
- B  $\text{work} = \text{force} - \text{distance}$
- C  $\text{work} = \text{force} \times \text{distance}$
- D  $\text{work} = \text{force} \div \text{distance}$

8. What feature of living things do the terms unicellular and multicellular describe?

- A how they are organized
- B how they reproduce
- C how they maintain temperature
- D how they produce macromolecules

Use the diagram below to answer question 9.



9. Which characteristic of life does the diagram show?

- A homeostasis
- B organization
- C growth and development
- D response to stimuli

10. A newly discovered organism is 1 m tall, multicellular, green, and it grows on land and performs photosynthesis. To which kingdom does it most likely belong?

- A Animalia
- B Fungi
- C Plantae
- D Protista

11. Unicellular organisms are members of which kingdoms?

- A Animalia, Archaea, Plantae

- B Archaea, Bacteria, Protista
- C Bacteria, Fungi, Plantae
- D Fungi, Plantae, Protista

12. Which microscope would best magnify the outer surface of a cell?

- A compound light
- B scanning electron
- C simple dissecting
- D transmission electron

Use the diagram below to answer question 13.



13. Which discovery was NOT made with the instrument above?

- A Bacterial cells have thick walls.
- B Blood is a mixture of components.
- C Insects have small body parts.
- D Tiny organisms live in pond water.

14. Which statement is false?

- A Binomial names are given to all known organisms.
- B Binomial names are less precise than common names.
- C Binomial names differ from common names.
- D Binomial names enable scientists to communicate accurately.

15. Which process do plant cells use to capture and store energy from sunlight?

- A endocytosis
- B fermentation
- C glycolysis
- D photosynthesis

16. Which transport process requires the use of a cell's energy?

- A diffusion
- B osmosis
- C active transport

D facilitated diffusion

17. Diffusion differs from active cell transport processes because it

A forces large molecules from a cell.

B keeps a cell's boundary intact.

C moves substances into a cell.

D needs none of a cell's energy

Use the diagram below to answer questions 5 and 6.



18. Which structure does the arrow point to in the eukaryotic cell?

A cytoplasm

B lysosome

C nucleus

D ribosome

Use the diagram below to answer questions 5 and 6.



19. Which feature does a typical prokaryotic cell have that is missing from some eukaryotic cells, like the one above?

A cytoplasm

B DNA

C cell membrane

D cell wall

20. What is limited by a cell's surface-area-to-volume ratio?

A. cell shape

C.cell surface area

B. cell size

D.cell volume