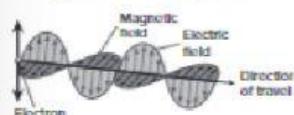


## Revision – term 2 science

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.



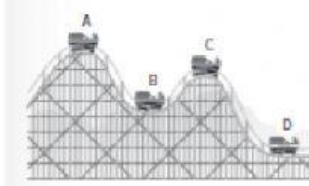
2. Which form of energy is being transmitted in the picture?

- 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 2.



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 6.



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