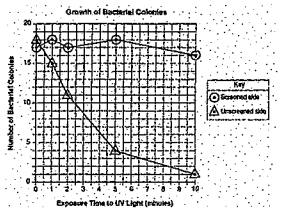
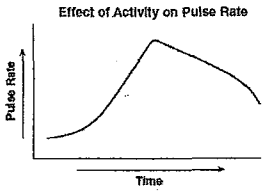
Answer Key
TOPIC 1 PRACTICE QUESTIONS

1. **D**
2. **A**
3. **D**
4. **C**
5. **B**
6. **A**
7. **C**
8. — plant height — number/size of leaves/roots — amount/percent of leaf discoloration — daily growth
9. — Potassium helps plants grow. — Potassium is not needed by plants for proper growth. — Plants missing potassium will not grow tall. — Plants lacking potassium will not be green.
10. 

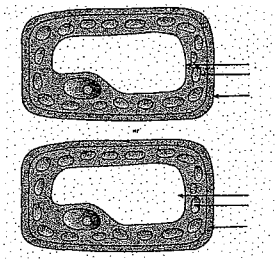
11. 

12. **C**
13. **C**
14. **D**
15. – The hypothesis would be supported if only the plants exposed to less than 10 hours of daylight change color and those exposed to more hours of daylight do not change color. – All of the plants changed color/none of the plants changed color.
16. – leaf color, – whether or not color changes
17. – temperature, –amount of water/fertilizer, – soil condition, – age/size of plants
18. **A**
19. **A**
20. **D**

Answer Key
TOPIC 2 PRACTICE QUESTIONS

1. **B**
2. **B**
3. **B**
4. **D**
5. **B**
6. **C**
7. **B**
8. **A**
9. **C**
10. **A**
11. **C**
12. **A**
13. organelle
    cell
    tissue
    organ
    organism
14. **D**
15. **C**
16. **D**
17. **D**
18. **A**
19. **B**
20. **B**

Answer Key
TOPIC 3 PRACTICE QUESTIONS

1. ~~C~~ D
2. ~~B~~ C
3. ~~A~~ Salt/Salt water
4. ~~A~~ C
5. **A**
6. **D**
7. **C**
8. **D**
9. **B**
10. **C**
11. **D**
12. **A**
13. **A**
14. **C**
15. **D**
16. 
17. *Examples:* — photosynthesis — production of cellulose — produces chlorophyll — producing its own food
18. — Structure 3 provides the energy needed for protein synthesis. — Structure 4 allows the movement of substances into the cell for the process of protein synthesis.
19. *Examples:*
– mitochondrion: site of respiration or releases energy
– cell membrane: regulates what enters (or leaves) the cell
20. A - It supports and protects the cell.
B - It regulates the movement of materials into and out of the cell.
C - It stores various materials.

Answer Key
TOPIC 4 PRACTICE QUESTIONS

1. **C**
2. **C**
3. **B**
4. **B**
5. **D**
6. **B**
7. **A**
8. **B**
9. **A**
10. **B**
11. **B**
12. **A**
13. **B**
14. **B**
15. **B**
16. **C**
17. — The shape of the protein could change. — The function of the protein could be different. — It might form a different protein.
18. –Pepsin will either stop functioning or slow down. –This is because the pH range in the small intestine is 7.5 to 9.0 and pepsin normally functions at 1.0 to 3.0. –A fever of 40°C could slow/stop enzyme functioning, since these enzymes work best at around 37°C. –Ptyalin and trypsin cannot both digest the same type of food because enzymes are specific.&-ndash;They have different shapes.
19. *Examples*: — A different organic compound would have a different shape. — A different organic compound would not fit with substance X. — The active site of X does not fit a different substrate. — Substance X is specific to only certain materials.
20. Molecule *D* will most likely react with the enzyme because Molecule *D* is the only one that fits the shape of the enzyme.