- 1. Outline the 3 cell domains and what kind of organisms belong to it.
- 2. Describe how a white blood cell fights off an infection.
- Outline the function of ribosomes.
- 4. State which organelles are singular to plant cells.
- 5. Define DNA.
- 6. Interpret the role of meiosis in producing genetic diversity.
- 7. State the phase at which the cell divides into two during mitosis.
- 8. Outline the process of diffusion.
- Apply your knowledge to explain the homeostatic processes that will take place when there is not enough water in your blood.
- 10. Explain, at a molecular level, how increasing the concentration of a reactant will affect the rate of the reaction.
- 11. Describe the difference between endothermic and exothermic reactions.
- 12. Interpret how a catalyst may increase the number of steps for a reaction to take place but still reduce the time.
- 13. State 3 examples of transverse waves.
- 14. State whether light needs a medium to propagate. State the approximate speed of light.
- 15. A wave has wavelength equal to 0.04m and period equal to 0.2s. Calculate its speed.
- 16. Explain the shape of a rate of reaction curve for a product.
- 17. Outline what is metabolism and how does the brain control it.
- 18. Describe what is a limiting agent.
- 19. State 3 factors that are usually used to define a living organism.
- 20. State the equation for the period of a pendulum and one assumption that has to be made for the equation to be valid.

- 21. Explain how vaccines are made and work.
- 22. Describe why a specific pendulum will have different periods on the Earth and on Venus.
- 23. State the main anabolic hormone in the human body.
- 24. Describe the function of the chloroplast.
- 25. Outline the use of enzymes in digestion.
- 26. At a molecular level, describe how the surface area of a reactant will affect the rate of the reaction.
- 27. Draw the Lewis diagram for  $NO_3$ .