

## CTEC Applied Science Transition Questions

### Biology

- 1) Give the structural features of prokaryotes and Eukaryotes.
- 2) Give the similarities and differences between mitosis and meiosis
- 3) Describe Carl Linnaeus classification system.
- 4) Describe how to prepare a microscope slide
- 5) Draw the structure of an alpha glucose molecule (EXTENSION)

### Chemistry

- 1) Draw and label the nuclear model of an atom
- 2) Explain the difference between alkanes and alkenes; include diagrams
- 3) Give the colours for the metal ions in a flame test:  $\text{Li}^+$ ,  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Ca}^+$ ,  $\text{Cu}^+$
- 4) How does covalent and ionic bonding differ?
- 5) Outline the steps in a simple titration

### Physics

- 1) Describe the differences between mean, mode and median.
- 2) Describe Hooke's law.
- 3) Give the relationship between current, resistance and potential difference.
- 4) Write 81 900 000 000 000 in standard form.
- 5) In a circuit, a Voltmeter reads 6.0 V and resistor has a resistance of 4.0 ohms. Calculate the current and convert into standard form.