



## Coonabarabran High School

### Assessment Notification

<b>Subject:</b>	Year 9 Science	<b>Task:</b>	Half Yearly Exam
<b>Weighting:</b>	20%	<b>Date:</b>	Fri 28 <sup>th</sup> May (week 6)

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<b>Topics:</b>	Atoms and the Periodic Table, Ecology, Electrical Circuits, Working Scientifically Skills.
<b>Equipment needed:</b>	Blue or black pens, lead pencil, pencil sharpener, ruler, an eraser and calculator.
<b>Length of exam:</b>	1 period
<b>Exam structure:</b>	10 stations with 4 minutes allocated per station including 3 min at the end to review answers. Students start at one of the 10 stations located around the room, they will be directed to move to the next station (consecutive order). Notice will be given at the start of each timeslot and with one-minute remaining.

### Year 9 Science – Revision guide

#### Knowledge and Understanding

##### Atoms and the Periodic Table

- identify that all matter is made of atoms which are composed of protons, neutrons and electrons
- describe the structure of atoms in terms of the nucleus, protons, neutrons and electrons
- identify some of the different atomic models presented throughout history and outline how and why the atomic model changed over time, for example:
  - Thompsons Plumb Pudding Model
  - Rutherford's model
  - Bohr's Solar System model (current model)
- appreciate the importance of scientific models.
- Use the Periodic Table (chemical symbol, Atomic number) to locate different elements.
- Relate the properties of different elements to their location on the periodic table (metals, non-metals, elements within a group or a row).
- Identify trends found in the Periodic Table including atomic number, and the properties of common elements.
- Organise and extract information from a table.
- Draw and analyse data in graphical formats.

## **Ecology**

- recall that ecosystems consist of communities of interdependent organisms and abiotic components of the environment
- Evaluate strategies used to maintain biodiversity in ecosystems while balancing the needs of the community
- describe how matter and energy flows through ecosystems, including input and output through food webs
- analyse how changes in some biotic and abiotic components of an ecosystem affect populations and/or communities

## **Electrical Circuits**

- describe qualitatively the relationship between voltage, resistance and current
- Draw circuit diagrams using appropriate symbols
- Use appropriate measurement devices to measure voltage and Current
- Identify and describe parallel and series circuits

## **Skills**

- Draw scientifically (2D / Lead Pencil / Ruler / Labels / Large and clear)
- Draw graphs (title, label axes, line or column graph)
- Interpret results and analyse graphs
- Identify independent and dependent variables
- Take accurate measurements (reading scales, choice of measurement device)
- Make predictions/inferences based on scientific knowledge and observations
- Describe safety guidelines and complete risk assessments
- Choose and use appropriate equipment
- Present information in tables, graphs and flow charts
- Follow a procedure
- Read and interpret diagrams and text
- Evaluate the reliability of first hand and secondary sources of information