



Coonabarabran High School Assessment Notification

Subject: Year 10 Science

Date of Notification: 14/05/18

Assessment task 3: Half Yearly Examination

Date: Term 2 Week 5 (see exam timetable)

Weighting: 15%

Teacher: M. Eshman, K. Christoff, K. Nash

Topics:	Chemical Reactions, Newton and Motion, Plate Tectonics
Equipment needed:	Blue or black pen, lead pencil, pencil sharpener, ruler, eraser and calculator.
Length of exam:	1 period
Exam structure:	The exam format is a stations test. There are 15 stations students will rotate through with 3 minutes allocated to each station.

Revision Guide

Knowledge and Understanding

Chemical Reactions

- Recall that all matter is composed of atoms and has mass
- Recall a range of elements and compounds using their common names and chemical symbol or chemical formulae
- Recall that compounds are classified into groups based on common chemical characteristics
- Investigate a range of types of important chemical reactions that occur in non-living systems and involve energy transfer, including:
Corrosion, Combustion, Precipitation, Decomposition
- Construct word equations from observations and written descriptions of a range of chemical reactions
- Deduce that new substances are formed during chemical reactions by rearranging atoms rather than creating or destroying them
- Identify that chemical reactions involve energy transfer and can be exothermic or endothermic

Newton and Motion

- Qualitatively explain the relationship between distance, speed and time
- Qualitatively describe the relationship between force, mass and acceleration
- Analyse everyday situations in terms of Newton's Laws of motion

Plate Tectonics

- Recall the structure of the Earth
- Explain the theory of Plate Tectonics by linking supporting evidence to it
- Identify convection currents in the mantle and gravitational forces cause the plates to move
- Identify and describe Divergent, Convergent and Transform plate boundaries
- Identify where earthquakes and volcanoes occur
- Describe some impacts of volcanic eruptions or earthquakes

Skills may include

- Recognising/selecting equipment
- Taking accurate measurements (reading scales, choice of equipment)
- Risk assessment
- Graphing skills
- Making observations
- Making inferences
- Interpreting diagrams
- Drawing equipment
- Recording results in tables
- Drawing conclusions from data/information
- Analyzing results

Year 10 Science Ideas for Half Yearly Revision

1. Use your senses to observe something and then use these observations to infer what is happening.
For the following sentences, circle the observation and underline the inference:
Bubbles were produced and the solution changed colour, therefore a reaction has taken place.
The reaction must be endothermic because the temperature is decreasing.
There are pieces of paper on the floor. The last class must have cut out pictures.
2. Draw a labelled diagram of an atom
3. Name three elements from Group 1 of the periodic table. Write their chemical symbol. Draw the arrangement of electrons for one of the elements.
4. Name three elements from Group 8 in the periodic table. Identify two characteristics you would predict all elements in this group to have.
5. List four observations which indicate a chemical reaction has occurred.
6. Make a table that identifies and describes four ways metals can be protected from corrosion.
7. Write a word equation as an example of each of the following reaction types:
 - i) Decomposition reaction
 - ii) Combustion reaction
 - iii) Corrosion reaction
 - iv) Precipitation
8. List Newton's three laws of motion and provide an everyday example of each. Draw a diagram for each example and identify the direction of each force acting on the object(s)
9. Describe the relationship between force, mass and acceleration
10. List three pieces of evidence that supports the theory of Plate Tectonics.
11. Draw and label diagrams that clearly show convergent, divergent and transform plate movement. Relate what is occurring in the asthenosphere to explain the movement of the tectonic plates in each of the diagrams.
12. If given a diagram, you should be able to predict:
 - where the youngest and oldest rocks are
 - which plate collisions will form subduction zones
 - which plate collisions will cause mountain ranges to form
 - where volcanoes are likely to form
 - where earthquakes are likely to occur
13. Describe how to safely light a Bunsen burner
14. Make up a risk assessment suitable for working safely with chemicals and glassware
15. For a named prac you have done this year (eg: To Precipitate or Not Precipitate), identify:
 - the aim
 - the independent variable
 - the dependent variable
 - two controlled variables
 - what you tested
 - what you observed/measured