**SWAN CHRISTIAN COLLEGE YEAR 10: TASK NOTICE**

YEAR 10 Science

ASSESSMENT TASK TITLE: Chemistry – Atomic structure and bonding topic test

WEIGHTING *FOR SEMESTER*: 10%

DUE DATE: Week 4

TIME ALLOWED/LENGTH: 50 minutes

LIST OF CONTENT DESCRIPTORS BEING ASSESSED

The atomic structure and properties of elements are used to organise them in the Periodic Table (ACSSU186)

* recognising that elements in the same group of the periodic table have similar properties
* describing the structure of atoms in terms of electron shells
* explaining how the electronic structure of an atom determines its position in the periodic table and its properties
* investigating the chemical activity of metals

DESCRIPTION OF TASK:

The task comprises a series of multiple choice items, and short response items. In general, the difficulty of the items increases from beginning to end.

Students are expected to be able to;

* Compare and contrast the properties of sub-atomic particles
* Determine the atomic structure isotopes including electron configuration from information supplied
* Compare and contrast the properties of ionic, covalent molecular, covalent network, and metallic bonding.
* Write correct names for ionic compounds and covalent molecules from their formulae.
* Write correct formulae for ionic compounds and covalent molecules from their names.
* Determine the outcome of the interaction of differing reactive metals.

HOW TO PREPARE FOR/SUCCEED IN THIS TASK:

1. Watch The 9 BEST Scientific Study Tips <https://www.youtube.com/watch?v=p60rN9JEapg>
2. Create a mind map of the topic to organise the information.
3. Do all the review questions from your text and check the correctness of your responses.
4. Do all revision tasks given to you to prepare you for the assessment, and check the correctness of your responses.
5. Revisit online activities assigned by your teacher over the course of the topic.
6. Ask your teacher for extra tutoring if you have missed classes or are struggling to successfully complete revision tasks and/or review questions.

MARKING Guide:

Science tests are designed around the following criteria. **Try writing your own questions on the topic using the following prompts.**

**Level 1- Knowledge 15-17%**

*Can you remember facts?*

• What is…? • Can you select? • Which one…? • Why did…? • How would you describe…? • When did…? • Can you recall…? • How would you explain…?

• How did \_\_\_happen…? • Can you list the three..? • How is…? How would you show…?

**Level 2- Comprehension 15-17%**

*Can you describe, compare, contrast, or translate ideas from one medium to another?*

• How would you classify the type of…? • How would you compare…? contrast…?

• Which statements support…? • Which is the best answer…?

• What can you say about …? • How would you summarize… ?

• Can you explain what is happening…? • What is meant by…?

**Level 3- Application 15-17%**

*Can you apply information they have learned in order to reach and answer a problem?*

• How would you use…? • How would you solve \_\_\_ using what you’ve learned…?

• What examples can you find to…? • How would you show your understanding of…?

• How would you organize \_\_\_\_\_\_\_ to show…?

• How would you apply what you learned to develop…?

• What approach would you use to…? • What other way would you plan to…?

• What would result if…? • Can you make use of the facts to…?

**Level 4- Analysis 30-40%**

*Can you show understanding of relationships, patterns & organization. It is about cause & effect, similarities & differences.*

• What are the parts or features of . . . ? • How is \_\_\_\_\_\_\_ related to . . . ?

• Why do you think . . . ? • Can you list the parts . . . ? • What inference can you make . . . ?

• What conclusions can you draw . . . ? • How would you classify . . . ?

• How would you categorize . . . ? • Can you identify the different parts . . . ?

• What evidence can you find . . . ? • What is the relationship between . . . ?

• Can you make a distinction between . . . ? • What is the function of . . . ?

**Level 5- Synthesis 10-20%**

*Can you form relationships and put things together in new or original ways?*

• What changes would you make to solve…? • How would you improve…?

• What would happen if…? • Can you elaborate on the reason…?

• Can you propose an alternative…? • Can you invent…?

• How would you adapt \_\_\_\_\_\_\_\_\_\_\_\_ to create a different…?

• What way would you design…? • What could be combined to improve (change)…?

• Suppose you could \_\_\_\_\_what would you do…? • How would you test…?

• Can you formulate a theory for…? • Can you predict the outcome if…?

• How would you estimate the results for…? • What could be done to minimize

(maximize)…?

• Can you construct a model that would change…? • How is \_\_\_\_\_ related to…?

• What are the parts or features of…?

• What information would you use to support the view…?

• Based on what you know, how would you explain…?