Notice of Assessment Task
Year 11 *Chemistry*
Secondary Source Investigation

Date of initial notification:	Date of submission of task:
Wednesday 26 February 2025 Week 5, Term 1	Wednesday 12 March 2025 Week 7, Term 1

Teacher:	Task Number:
Mrs Francis	1

Time Allowed:	Weighting of task:
2 Weeks	30%

Course Component/Focus area/topic/module:
Module 1: Properties & Structure of Matter

Task Description

Research and Analyse Data

"Compare and explain the similarities and differences between intermolecular and intramolecular bonding and the effect it has on physical properties of elements and compounds."

Part A

- Research and produce a **poster** for all the different types of intermolecular bonding (dispersion, dipole-dipole and hydrogen bonding). Posters should include (and can be in the format of a table):
  - Definitions
  - Examples of elements and /or compounds with labelled diagrams of each which MUST be hand drawn.
  - Strength of intermolecular bonding, in comparison to all three types.
  - General physical properties and trends (boiling point, melting point, density, length of molecule and molecular mass)
  - Explanation of each property/trend related to the type of intermolecular bonding.
- A reference list will be provided using the Harvard Referencing system. This should be a separate page.
- Part A should be no larger than an A3 page

Part B

- Complete an **Extended Response** (unseen question) in class on the due date. This section will relate to intermolecular bonding, physical properties using data that is provided to you.
- Students can access the hardcopy version of Part A whilst completing Part B.
- Students will have approximately 30 minutes to complete the unseen question.

Outcomes/Competencies to be assessed in this task:

CH11-5	analyses and evaluates primary and secondary data and information
CH11-8	explores the properties and trends in the physical, structural and chemical aspects of matter

Feedback: How will I receive feedback on this task?

☐ Written

☐ Verbal

Students will have one opportunity for teacher feedback PRIOR to submission. This will occur in Week 6.

MARKING GUIDELINES Secondary Source Investigation

Outcomes		Elementary	Basic	Sound	Thorough	Extensive	Mark
Knowledge and Understanding CH11-8 *Explores the properties and trends in the physical, structural and chemical aspects of matter*	*DEFINITIONS AND*	○ Attempts to/or provides a simple description of one or some of intermolecular bonding (hydrogen bonding, dipole-dipole and dispersion). ○ Attempts to produce some diagrams of each type of intermolecular bonding, ○ Lists some the general physical properties that some of the type of intermolecular bonding experiences.	○ Attempts to describe each type of intermolecular bonding (hydrogen bonding, dipole-dipole and dispersion) using basic scientific terms. ○ Produces diagrams of each type of intermolecular bonding, with minimal labels. ○ identifies the general physical properties that each type of intermolecular bonding experiences.	○ Describes each type of intermolecular bonding (hydrogen bonding, dipole-dipole and dispersion) using some correct scientific terminology. ○ Produces mostly labelled diagrams of each type of intermolecular bonding ○ Describes the general trends in physical properties that each type of intermolecular bonding experiences.	○ Describes each type of intermolecular bonding (hydrogen bonding, dipole-dipole and dispersion) using correct scientific terminology. ○ Produces labelled diagrams of each type of intermolecular bonding. ○ Explains the general trends in physical properties that each type of intermolecular bonding experiences.	○ Describes in detail each type of intermolecular bonding (hydrogen bonding, dipole-dipole and dispersion) using precise scientific terminology. ○ Produces clear and concise labelled diagrams of each type of intermolecular bonding. ○ Explains succinctly the general trends of physical properties that each type of intermolecular bonding experiences.	
		1-2 marks	***3-4 marks***	***5-6 marks***	***7-8 marks***	***9-10 marks***	
Knowledge and Understanding CH11-8 *Explores the properties and trends in the physical, structural and chemical aspects of matter*	*COMPARISON TABLE*	○ Attempts to produce a table with some correct headings. ○ Identifies few of the intermolecular bonding, occurrence between atoms and strength for each of their given elements and/or compounds. ○ Identifies some of the physical properties for each intermolecular bonding.	○ Produces a table with some correct headings for columns or rows. ○ Correctly identifies some of the intermolecular bonding, occurrence between atoms and strength for each of their given elements and/or compounds. ○ Identifies some of the physical properties for each intermolecular bonding. ○ Describes the how the identified properties related to the intermolecular bonding using basic scientific terms.	○ Produces a table with mostly correct headings for columns and rows. ○ Correctly identifies most of the intermolecular bonding, occurrence between atoms and strength for each of their given elements and/or compounds. ○ Identifies most the physical properties for each intermolecular bonding. ○ Explains the how the identified properties related to the intermolecular bonding using some correct scientific terminology.	○ Produces a table with clear headings for columns and rows. ○ Correctly identifies the intermolecular bonding, occurrence between atoms and strength for each of their given elements and/or compounds. ○ Outlines all the physical properties for each intermolecular bonding. ○ Outlines and explains the how the identified properties related to the intermolecular bonding using correct scientific terminology.	○ Produces a logical table with clear and concise headings for columns and rows. ○ Correctly identifies the intermolecular bonding, occurrence between atoms and strength for each of their given elements and/or compounds. ○ Outlines succinctly all the physical properties for each intermolecular bonding. ○ Outlines and explains clearly the how the identified properties related to the intermolecular bonding using precise scientific terminology.	
		1-3 marks	***4-6 marks***	***7-9 marks***	***10-12 marks***	***13-15 marks***	
Analysing data and information CH11-5 *Analyses and evaluates primary and secondary data and information*	*EXTNDED RESPONSE*	○ Attempts to identify some data points to the type of intermolecular bonding or property/properties. ○ Provides some relevant information.	○ Some data provided is correctly matched to the compounds/elements provided. ○ Some intermolecular bonding is correctly identified to the corresponding elements/compounds. ○ Some data points are describes in in relation to the property exerted by each intermolecular bonding.	○ Data provided is correctly matched to the compounds/elements provided. ○ Each intermolecular bonding is correctly identified to the corresponding elements/compounds. ○ Some data points are explained in in relation to the property exerted by each intermolecular bonding.	○ Data provided is correctly matched to the compounds/elements provided. ○ Each intermolecular bonding is correctly identified to the corresponding elements/compounds. ○ Data points are explained in in relation to the property exerted by each intermolecular bonding. ○ Provides a justification of each data point.	○ Data provided is correctly matched to the compounds/elements provided. ○ Each intermolecular bonding is correctly identified to the corresponding elements/compounds. ○ Data points are explained in detail in relation to the property exerted by each intermolecular bonding. ○ Provides a clear justification of each data point.	
		1-2 marks	***3-4 marks***	***5-6 marks***	***7-8 marks***	***9-10 marks***	
Analysing data and information CH11-5 *Analyses and evaluates primary and secondary data and information*	*REFERENCE LIST*	○ Limited use of a reference list ○ Use of 0-2 references	○ Provides a reference list and attempts to use the appropriate reference style ○ Use of 2-3 references	○ Provides a reference list using the appropriate referencing style that may be limited and/or have minor errors ○ Use of 5-7 references	○ Provides an accurate reference list, using the appropriate referencing style with some minor errors ○ Uses a range of reliable and valid secondary.sources	○ Provides an accurate reference list using the Harvard referencing style. ○ Uses a range of reliable and valid secondary.sources	
		1 mark	***2 marks***	***3 marks***	***4 marks***	***5 marks***	

Total	40

Feedback:

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- *If you are absent on the day that the task is due, you MUST see your teacher the next day (not your next lesson) that you are present at school to show your medical certificate or produce a misadventure form (refer to your Assessment Booklet for a copy of the form).*
- *Exemptions and extensions for any other reason will only be determined at the discretion of the Head Teacher, and only in extenuating circumstances. You must advise the Head Teacher as soon as possible if you know you are unable to submit the task on the due date.*
- *All appeals must be lodged within 48hrs of receipt of the task. Students who may consider an appeal are not permitted to take their task home. The original task cannot be altered in any way prior to the appeal process.* See Assessment booklet for details.