



ST ANDREW'S SECONDARY SCHOOL

NAME

CLASS

--	--	--

CHEMISTRY



Supplementary Notes

Command Words

Apart from the standard 'Why', 'What', 'Who', 'When', 'Where' & 'How', command words are used in all questions to inform you of the **requirements** you should provide in your answers.

Command word	Requires you to	Example
Add / Label	Provide the addition or labelling of a material for the question.	Label on the diagram where cold water enters the condenser.
Calculate	Obtain a numerical answer, showing relevant working. This is usually accompanied with an appropriate unit.	Calculate the mass of sodium chloride required in this reaction.
Comment on	Recall or infer points of interest relevant to the context of the question, taking account of the number of marks available.	Comment on the statements made by student A .
Compare	Provide both similarities and differences between concepts or things. Should not require the drawing of a conclusion. Answer must relate to both (or all) things mentioned in the question.	Compare the results obtained by both students.
Construct	Write a balanced equation, not by factual recall but by analogy or by using information in the question.	Write a balanced chemical equation, including state symbols, for this reaction.
Define	Present a formal statement or equivalent paraphrase being required.	Define <i>elements</i> .
Describe	Give an account of something. Statements in the response need to be developed, as they are often linked but do not need to include a justification or reason.	Describe the process involved when the ice cube turned into water.
Determine	Obtain a quantitative answer that cannot be measured directly.	Determine the total number of hydrogen atoms present in beaker X .
Design	Plan, invent or put together a set of procedures/ from existing principles/ideas.	Design an experiment to obtain salt from this mixture.
Discuss	Give a critical account of the points involved in the topic.	Discuss the importance of the use of catalytic converters in car engines.
Draw	Produce a diagram either using a ruler or freehand.	Draw the chromatogram expected from this experiment.
Estimate	Find an approximate value, number or quantity from a diagram / given data or through a calculation.	Using the information provided in the table, estimate the atomic radius of astatine.

Evaluate	Review information (e.g. data, methods) then bring it together to form a conclusion, drawing on evidence including strengths, weaknesses, alternative actions, relevant data or information.	Based on the results obtained, evaluate the performance of each method studied.
Explain	Provide a justification / exemplification of a point. The answer must contain some form of reasoning / justification. Can include mathematical explanations.	Explain why the beaker feels warm to hold after some time.
Find	Give a general term that may be variously interpreted as calculate, measure, determine, etc.	Find the volume of acid used in this experiment.
Give / Name	Give one or more pieces of information. All these command words are really synonyms.	Name the process involved.
Identify	Give some key information to be selected from a given stimulus/resource.	Identify the errors he made in his experiment.
Justify	Give evidence to support (either the statement given in the question or an earlier answer).	Justify your answer in (b) .
List	Provide a number of points, generally each of one word, with no elaboration. Where a given number of points is specified, this should not be exceeded.	List the procedures involved in this experiment.
Measure	Determine the dimensions or angle from a diagram using an instrument such as a ruler or protractor.	Measure the height of solids formed in each test tubes.
Plot	Produce a graph by marking points accurately on a grid from the data provided / obtained, and then draw a line of best fit through these points. A suitable scale and appropriately labelled axes must be included if these are not provided in the question.	Plot your results in the grid provided next page.
Predict / Deduce	Provide an expected result.	Predict the boiling point of substance C .
Sketch	Produce a freehand drawing. For a graph, this would need a line and labelled axes with important features indicated. The axes are not scaled.	Sketch the apparatus you would use to obtain substance Z .
State	Give concise answer with little or no supporting argument.	State what is meant is by the term <i>diatomic molecules</i> .
Suggest	Propose a solution to a problem in a novel context.	Suggest why these wine bottles need to be kept in an inverted position during fermentation.

»»»» TAKE NOTE

- Consider the marks allocated for each question to decide what to include in your answer. In general, 1 marking point for each mark allocated. (4 marks = you are required to give 4 marking points)
- Questions that require you to include (ie. 'List' / 'Name') a certain number of points in your answer, **avoid** giving more than those required. Examiners may disregard (access denied) the points beyond the number required.

Example

List any two compounds present in air.

IF your answer: Carbon dioxide, oxygen, water

(You will awarded just **1** mark as examiners only consider the first two options, with oxygen being an incorrect answer. Examiners may disregard the third option even if it is correct!)