Describe how to draw error bars on a graph.	What's the difference between a systematic and a random error?	Choose a required practical and list the independent, dependent and control variables.	Choose a piece of apparatus and write a set of instructions on how to use it accurately.	Explain the difference between significant figures and decimal places	Choose an article from https://www.newscientist.com/section/news/ Design an investigation to further your understanding of the topics involved.	Write a list of things you could do to progress in your a level subjects during your study periods at school
Research Harvard referencing and learn how to do this.	Choose five pieces of apparatus that measure volume and discuss the resolution of each.	Investigate 10 potential science careers which make use of your A Level choices.	Pick a profession or career and try and list as many ways science might be used in that job.	Explain the difference between a control variable and an experimental control.	Explain the difference between repeatability and reproducibility.	Research universities and apprenticeships and find the advantages and disadvantages for both
Discuss how you would determine if an experiment gives valid results.	Describe how to convert a number into standard form.	Metres are a unit of length. Choose a number and convert it from metres to millimetres, micrometres and nanometres.	Why are indices important? Describe where indices are used in your specification.	Choose an article from https://www.newscientist.com/section/news/ Think of 5 questions you have after reading the article.	Research Cornell note taking and identify the advantages and disadvantages of using it	Identify some local businesses that you could do work experience at.
Choose an article from http://www.sciencedaily.com Think of 5 questions you have, after reading the article.	Research the question "What is science?".	Give definitions of the following terms: dependent, independent and control variable.	What is an anomaly? How would you identify an anomalous result in a table and in a graph?	Write a set of rules to draw a line graph.	Describe the difference between qualitative and quantitative date. Explain how both can be processed.	Choose an article from https://www.newscientist.com/section/news Find three pieces of additional information on a key word mentioned in the article
Write a list of revision techniques that help you learn.	Evaluate your learning this year. What strategies are helpful to you. How could you improve further next year?	What does the term resolution mean? Give examples of measuring instruments and their resolutions	Give definitions of the following terms: hazard, risk and control measure.	Kilograms are a unit of mass. Choose a number and convert it from kilograms to grams and tonnes.	Discuss how you would determine if a newspaper article on a scientific topic is a reliable source of information	Explain the difference between accuracy and precision.
Use the idea of throwing darts at a dartboard to explain the difference between accuracy and precision	Describe how to calculate a percentage uncertainty.	Watch the following video: https://www.youtube.com/watch?v=5Eg_Gzz3hXY Summarise how to read a scientific paper.	Write a cover letter for a job in science. Explain which skills you have that would make you perfect for the job.	Discuss how you would determine if an experiment gives reliable results	What's the difference between a random uncertainty and a systemic uncertainty.	Describe how to convert a number with many decimal places into standard form.
What does proportional mean? Sketch a graph showing a proportional relationship.	Choose an article from https://www.newscientist.com/section/news/ that interests you and summarise the key findings.	Choose an article from http://www.sciencedaily.com Choose three scientific concepts in the story that you are unfamiliar with. Find out what they mean	Give definitions of the following terms: range, resolution and anomaly.	What does the term repeatable mean?	Give definitions of the following terms: true value and uncertainty.	Describe how to convert between a ratio and a percentage. Choose a ratio and show your method.
What does the expression "validity of experimental design" mean?	Explain why standard form is useful.	What does directly proportional mean? Sketch a graph showing a directly proportional relationship.	Research how a scientific paper is written.	Choose an article from http://www.sciencedaily.com that interests you and summarise the key findings.	Research how a scientific poster is presented.	Explain the difference between a hazard and a risk.
Evaluate the need for a scientist to have good communication skills.	Explain the meaning of the terms parallax error and zero error using examples.	Describe how to convert between a percentage and a fraction. Chose a percentage and show your method.	Explain why it is important for scientists to share their data.	What does the term reproducible mean?	Describe how to convert a large number into standard form.	Evaluate the need for a scientist to have good mathematical understanding and skills.
What does inversely proportional mean? Sketch a graph showing an inversely proportional relationship.	Choose an article from http://www.sciencedaily.com Design an investigation to further your understanding of the topics involved.	Explain the difference between a measurement error and a systematic error.	Research a career that you are interested in. What scientific skills or qualifications are required?	Identify an example of a 'redacted' journal paper. Explain why it was redacted.	Research how to get good grades at A level. Decide which ones you will follow	Choose an article from http://www.sciencedaily.com Choose a keyword you find the most interesting. From one or more other websites, find three pieces of additional.