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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Describe how to draw error bars on a graph.**10 POINTS** | What’s the difference between a systematic and a random error? **10 POINTS** | Choose a required practical and list the independent, dependent and control variables. **10 POINTS** | Condense a topic onto one revision card. **10 POINTS** | Choose a piece of apparatus and write a set of instructions on how to use it accurately. **10 POINTS** | Design a board game using maths questions as part of the game.**10 POINTS** | Choose five pieces of apparatus that measure volume and discuss the resolution of each. **10 POINTS** | Write an end of topic test for someone in your class on your most recent topic.**10 POINTS** | Write a 6-mark extended response question and a mark scheme. **10 POINTS** | Explain the difference between significant figures and decimal places.**10 POINTS** |
| Choose a required practical and sketch a graph of the expected results.  **10 POINTS** | Find a science-based news story published in the last seven days that you find interesting. Write a summary of it. **10 POINTS** | Investigate 10 potential science careers which make use of your A Level choices. **10 POINTS** | Pick a profession or career and try and list as many ways science might be used in that job.**10 POINTS** | Choose a controversial topic in science and explain the ethical and moral issues surrounding it. **10 POINTS** | Design a new enquiry investigating a question of your choice.**10 POINTS** | Give definitions of the following terms: dependent, independent and control variable. **10 POINTS** | What is an anomaly? How would you identify an anomalous result in a table and in a graph?**10 POINTS** | Explain the difference between a control variable and an experimental control.**10 POINTS** | Explain the difference between repeatability and reproducibility. **10 POINTS** |
| Discuss how you would determine if an experiment gives valid results.**10 POINTS** | Describe how to convert a number into standard form. **10 POINTS** | Describe how to convert between a fraction and a percentage. Choose a fraction and show your method. **10 POINTS** | Write a list of all the equations you could be expected to recall and apply.**10 POINTS** | Metres are a unit of length. Choose a number and convert it from metres to millimetres, micrometres and nanometres. **10 POINTS** | Why are indices important? Describe where indices are used in your specification. **10 POINTS** | Choose an article from<https://www.newscientist.com/section/news/> Think of 5 questions you have after reading the article.**10 POINTS** | Choose a topic and condense it into Cornell notes. **10 POINTS** | Write a set of rules to draw a line graph.**10 POINTS** | Describe the difference between qualitative and quantitative date. Explain how both can be processed. **10 POINTS** |
| Choose an article from<http://www.sciencedaily.com> Think of 5 questions you have, after reading the article. **10 POINTS** | Research the question “What is science?”. **10 POINTS** | Write a set of rules to draw a bar graph.**10 POINTS** | Metres are a unit of length. Choose a number and convert it from metres to millimetres, micrometres and nanometres. **10 POINTS** | Audit you learning this year. Give each topic a mark out of 10 for your confidence and create a list of topics on which you need to improve. **10 POINTS** | Write a list of revision techniques that help you learn.**10 POINTS** | Describe the method for drawing a line of best fit. **10 POINTS** | Choose 5 equations and learn them.**10 POINTS** | Kilograms are a unit of mass. Choose a number and convert it from kilograms to grams and tonnes.**10 POINTS** | Discuss how you would determine if a newspaper article on a scientific topic is a reliable source of information. **10 POINTS** |
| Choose a required practical and prepare a results table.**10 POINTS** | Evaluate your learning this year. What strategies are helpful to you. How could you improve further next year? **10 POINTS** | What does the term resolution mean? Give examples of measuring instruments and their resolutions. **10 POINTS** | Give definitions of the following terms: hazard, risk and control measure. **10 POINTS** | What does proportional mean? Sketch a graph showing a proportional relationship.**10 POINTS** | Choose an article from<https://www.newscientist.com/section/news/> that interests you and summarise the key findings. **10 POINTS** | Choose a topic and design an investigation to answer a question you have about the topic. **10 POINTS** | Write a list of all the equations you will be given and expected to apply in an exam.**10 POINTS** | Choose a required practical. Write a hypothesis and method to extend your understanding of this practical. **10 POINTS** | Explain the difference between accuracy and precision. **10 POINTS** |
| Use the idea of throwing darts at a dartboard to explain the difference between accuracy and precision. **10 POINTS** | Describe how to calculate a percentage uncertainty. **10 POINTS** | Watch the following video: <https://www.youtube.com/watch?v=5Eg_Gzz3hXY> Summarise how to read a scientific paper. **10 POINTS** | Write a cover letter for a job in science. Explain which skills you have that would make you perfect for the job. **10 POINTS** | Choose a required practical, list the potential sources of inaccuracy and describe how to make the results more accurate. **10 POINTS** | What’s the difference between a random uncertainty and a systemic uncertainty.**10 POINTS** | Describe how to convert a number with many decimal places into standard form.**10 POINTS** | Choose an article from<https://www.newscientist.com/section/news/>Design an investigation to further your understanding of the topics involved.**10 POINTS** | Find an app that is useful for your course. Download it and spend 20 minutes using it. **10 POINTS** | Download a past paper, answer and self-assess the first 3 questions. **10 POINTS** |
| Choose a topic and write 10 multiple choice questions on it.**10 POINTS** | Write as much as you can on a chosen topic. Review your notes, then add to your writing.**10 POINTS** | 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. **10 POINTS** | Give definitions of the following terms: range, resolution and anomaly. **10 POINTS** | What does the term repeatable mean?**10 POINTS** | Chose a topic and design a crossword, including the clues for it. **10 POINTS** | Describe how to convert between a ratio and a percentage. Choose a ratio and show your method. **10 POINTS** | Choose an article from<https://www.newscientist.com/section/news> Find three pieces of additional information on a key word mentioned in the article. **10 POINTS** | Chose an equation and practise changing the subject.**10 POINTS** | Give definitions of the following terms: true value and uncertainty. **10 POINTS** |
| Write a multiple choice quiz that tests a student’s understanding of mathematical skills. **10 POINTS** | Explain why standard form is useful.**10 POINTS** | Create an A4 poster explaining a topic of your choice. **10 POINTS** | Research how a scientific paper is written.**10 POINTS** | Choose an article from<http://www.sciencedaily.com> that interests you and summarise the key findings. **10 POINTS** | What does the expression “validity of experimental design” mean?**10 POINTS** | What does directly proportional mean? Sketch a graph showing a directly proportional relationship.**10 POINTS** | Create a Kahoot quiz for a topic you have studied in science this year.**10 POINTS** | Discuss how you would determine if an experiment gives reliable results.**10 POINTS** | Write a multiple choice quiz that tests a student’s understanding of practical skills.  **10 POINTS** |
| Evaluate the need for a scientist to have good communication skills. **10 POINTS** | Explain the meaning of the terms parallax error and zero error using examples.**10 POINTS** | Describe how to convert between a percentage and a fraction. Chose a percentage and show your method. **10 POINTS** | Explain why it is important for scientists to share their data.**10 POINTS** | What does the term reproducible mean?**10 POINTS** | Choose a required practical and carry out a risk assessment identifying the hazards, risks and control measures. **10 POINTS** | Describe how to convert a large number into standard form.**10 POINTS** | Evaluate the need for a scientist to have good mathematical understanding and skills. **10 POINTS** | Research how a scientific poster is presented. **10 POINTS** | Explain the difference between a hazard and a risk.**10 POINTS** |
| What does inversely proportional mean? Sketch a graph showing an inversely proportional relationship. **10 POINTS** | Create a board game based on a topic from this term. It should test skills and knowledge.**10 POINTS** | Write a multiple choice quiz that tests a student’s understanding of a required practical. **10 POINTS** | Choose a required practical. Evaluate and suggest improvements to the method.**10 POINTS** | Choose an article from<http://www.sciencedaily.com> Design an investigation to further your understanding of the topics involved.**10 POINTS** | Explain the difference between a measurement error and a systematic error.**10 POINTS** | Research a career that you are interested in. What scientific skills or qualifications are required?**10 POINTS** | Identify an example of a ‘redacted’ journal paper. Explain why it was redacted.**10 POINTS** | Choose any topic and make a spider diagram to summarise your knowledge. **10 POINTS** | 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.**10 POINTS** |