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| **Year 10 Term 6.2 - Maths** |  |
| **Enquiry Question: Given that climate change raises the earth’s average temperature each year, what’s the  probability that the 18th May is hotter in 2021 than it was in 2020?** |
| **Unit title: Probability** **Why now?** This unit of work builds on your understanding of probability from both year 8 and 9, going into more detail on how to calculate probabilities and understand how to work with more complex events. This will lead onto more ideas in year 11 and beyond. |
| **Knowledge**Students will know about… | **Application/Skills**Students will be able to… | **Vocabulary***(Tier 2 and 3)* | **Home** **Learning** | **Assessment** | **Extra Resources****Extended Reading** | **Cultural Capital** |
| 1. Recap probability basics
2. Probabilities sum to 1
3. Data and probability
4. Types of event- independent, dependent, mutually exclusive
5. Using Venn diagrams and two way tables with probability
6. Laws of probability - AND and OR
7. Probability trees - basics
8. (extension) Probablity trees - when probabilities change
9. (extension) Conditional probability
10. (extension) Monty Hall problem
 | 1. Calculate simple probabilities.
2. Order events based on probability.
3. Know and apply mathematical language.
4. Use tree diagrams to calculate probabilities.
5. Use Ven diagrams to calculate probabilities.
 | ***Tier 2***LikelihoodDataDependentIndependent ***Tier 3***Number lineCalculate Venn diagrams Tree diagrams  | **Pre-classroom:**Pre-lesson tasks on **google classroom** to get you thinking.Diagnostic questions**Post-Classroom:**Post lessons online tasks:* My Maths
* Google Form Quizzes
* Independent learning notes
 | Summative Assessment at the end of T6.  | **Enrichment:**Read this article on Winning Odds, and find out about interesting ways to use an understanding of probability to create strategy![**https://plus.maths.org/content/os/issue55/features/nishiyama/index**](https://plus.maths.org/content/os/issue55/features/nishiyama/index) | **Cultural Capital:** Look at the Royal Institution Website and enjoy a family fun day exploring some interactive maths or listening to some talks![**https://www.rigb.org/families/family-fun-days**](https://www.rigb.org/families/family-fun-days) |
| **Numeracy**ProductSumTotalAddSubtractDifference |