**Explanation**

* These activities are to help you keep up with your Maths over the summer before you join us in year 7.
* Some tasks are differentiated depending on how confident you feel with Maths. You can choose the level suitable for you. Mild (easiest); Spicy (middle) and Hot (hardest).
* Each task should take about an hour to complete but of course you can do more if you wish!
* Make sure you keep your work as your new Maths teachers will be keen to see this in September when you join us at Verulam.
* You should try and complete 1 task for every week of the summer holidays.

**Activities**

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| Task Title | Task Description | Estimated Time  |
| 1. **Sequences**
 | This task is for all students to complete. Discover about the Fibonacci sequence and the Golden Ratio.Remember to watch the video from the PowerPoint first to discover what this is all about. Once you have created your own spiral, don’t forget to decorate it to show your new Maths teacher in September.Can you find your own examples of the Golden Ratio and Fibonacci in real life? | 1 hour |
| 1. **Written Methods**
 | This is an opportunity for you to practise your written methods for multiplication and division. All of these are important skills to do without a calculator.Spend some time reminding yourself of the methods using the PowerPoint for division and this link for long multiplication:<https://youtu.be/Aihmiqf4cBk>You should then choose your level when you complete each task.If you fancy a challenge- try the NRICH Cryptarithms activities. How many can you solve? These involve addition. | 1 hour |
| 1. **Fractions and decimals**
 | Try the equivalent fractions triple concentration challenge. Don’t forget to watch the video below first to remind yourself about equivalent fractions.<https://www.bbc.co.uk/bitesize/articles/zv798xs>Use the Add and Subtract fractions PowerPoint to remind you of the technique. Try then to complete the adding and subtracting code breaker. Can you crack the code?If you fancy a challenge- try the Decimals-chilli-challenge task.\* This requires you to apply your skills to harder problems. How many can you solve? You might need to use the link below to remind you of the skills: <https://www.bbc.co.uk/bitesize/topics/zsxhfg8> | 1 hour |
| 1. **Area and perimeter**
 | Use the area and perimeter poster to remind yourself of what area and perimeter is. Have a go at the area and perimeter revision tasks: there are 3 different levels; mild, spicy and hot so you choose what works for you.If you want a further activity can you design your dream bedroom with a maximum area of 30m2. Remember all of the furniture will need to fit inside so you will need to calculate the areas of these too. Your new Maths teacher will be keen to see your plan in September.If you fancy a tough challenge- try the Area and Perimeter-chilli-challenge task. This requires you to apply your skills to harder problems. How many can you solve?\* | 1 hour |
| 1. **Data handling**
 | This task is for all students to complete and encourages you to explore all aspects of the data handling cycle.Help Miss Rosler with the Chocolate factory challenge with lots of different activities to complete. You do not need to complete all the activities if this takes you a long time. Complete what you can in your hour of working.Your new Maths teacher and Miss Rosler will be keen for you to share your projects in September. | 1 hour |
| 1. **Algebra and problem solving**
 | Try some problem-solving puzzles from the PowerPoint. What strategies are you using to solve them? What makes an effective problem solver? Find out by completing the puzzles…If you fancy a tough challenge- try the Algebra-chilli-challenge task. This requires you to apply your skills to harder problems. How many can you solve?\* | 1 hour |
| **Useful resources** | From Colin Hegarty, '**Secondary Ready**' is designed to prepare Year 6 learners for joining school in Year 7 in September.   The content and course would certainly help keep these children mathematically fresh over this difficult period and is **free-of-charge until September 2020**. You can sign your son up, using the link below:<https://www.numerise.com/secondary-ready/> |

*\*Some answers are not included to the tough challenges- bring these along in September to show your new Maths teacher. They will be really impressed to see your efforts!*