

Class 4 Home learning: Autumn 1 (*tasks are compulsory)

*Maths Investigation Light the Lights! You will need access to the internet to complete this challenge. The website link is on the back of this page. You may like to complete it in <u>Homework Club</u> if you cannot access the internet from home. You will need to use your knowledge of number properties to complete this challenge. Do not look at the solution until you have completed the task! Can you find the rule which lights up each of the lights? Use comparison symbols (< > =) to explain each rule. What is the smallest number which lights up all the lights? As above. Did you come up with a system for testing the lights? Can you explain what methods you tried (eg, First, I tried odd numbers and I noticed...)? As above. How could you test each rule to see if it is always true? What is the smallest number that lights up all the lights. Can you explain why (using your Maths knowledge) this is the smallest number that will light up all the lights? As above. Can you find a rule that makes it impossible to light up any of the lights.	PE / English Think of some PE challenges to run for the whole school. Describe at least one challenge and decide who would take part and how you would organise the event (see below for some ideas for team roles). As above, but explain how many people would be needed to actually organise the challenge and what their roles would be, eg, team leader, timer, scorer, record keeper, referee, judge, equipment organiser, contestant organiser, publicity organiser, photographer, reporter, health and safety officer, first-aid person, etc. As above, but explain what personality strengths and skills each person on the organisation committee would need to do their job well. As above, and explain how running your challenge would benefit the school community. You might want to consider British and Christian values.	*Maths Investigation In this investigation you will be looking at 2-dimensional shapes. The aim is to explore the relationship between the area and perimeter of shapes – particularly different types of rectangle. It's useful to remember that a square is just a special type of rectangle which has 4 sides of the same length. Your Task: Try to find a square which has the same measurement around its perimeter as it does for its area (remembering that area is measured in squared units, eg, cm²) Draw the shape you've found, and record any other shapes you tried As above, but also explore other options – can you find a rectangle with one length twice as long as the other which also has perimeter equal to area? As above, and can you show how you calculated these measurements? As above, and what other investigations could you do? Can you find any other shapes with the same perimeter and area?
*English Story writing challenge / Editing Write a story beginning <i>Suddenly,...</i> Include a range of description, action and dialogue. Make adventurous word choices. Use a range of connectives to link your sentences. Editing and improving. Write a story as above. Now edit it so that it is no more than 100 words long. You will have to make some hard choices when you edit your first draft so that your story still makes sense and is exciting to read. Editing and improving. Write a story as above. Now edit it so that it is exactly 100 words long. You will have to make some really hard choices when you edit your first draft so that your story still makes sense and is exciting to read.	RE / English	Topic / English
Free Choice For example, this could be to do with something that really interests you or somewhere interesting you've been, or this may be in the form of a model. There must be a writing or Maths content of some kind. Ask Mrs Bowring or Mrs O'Neill first to check it's suitable.	*Writing Design your own comet or celestial object making machine - perhaps one that turns you into a star or asteroid. Write instructions for operating it. You may like to include diagrams, illustrations or a model to go with your instructions.	REMEMBER: You need to complete one piece of home-learning each week... you are very welcome to complete MORE than one task each week to challenge yourself if you would like to ☺. Please record what level of challenge you feel you met (we expect you to challenge yourself). If you find any of the tasks too hard or too easy, or you cannot complete one of the tasks for any reason, talk to Mrs O'Neill or Mrs Bowring and we will find you an alternative. Homework should always be beautifully presented in your neatest handwriting. Diagrams or illustrations should be neatly drawn. You may decorate or add drawings to your homework if you wish to, as long as this adds to the overall presentation.

Home Learning Web-Links

Light the Lights! <https://nrich.maths.org/7044>

Printable paper (lined, grid, graph, etc): <https://www.printablepaper.net/>