Here is a table of home learning challenges based on our theme. This is a valuable opportunity for the children to direct their own learning, develop ideas and record creatively around a given topic. You do this by selecting homework tasks from the grid below. However they must do tasks A, B and C and will need parental help with them.

The target up to the end of the half-term is to earn a minimum of 15 points (Tasks A, B, C). You can achieve more than this: 21 points = straight on to Silver; 27 points = straight on to Gold!

The focus is QUALITY WORK, not just completing tasks quickly (you have 4 weeks). All work MUST fit in your learning log. If you're not sure what I mean with any of the challenges, please ask me.

Don't forget to be creative and enjoy what you're doing, but think carefully about your presentation - all tasks must be done in your neatest handwriting and be of the same high standard as your school work.

## A

Key Instant Recall Facts. They need to be practised on a daily basis, even if it's just 5 or 10 minutes, because they are invaluable in making progress in lots of areas of maths. You need to write down which KIRF you've done and an example of what you did, e.g. Square numbers: 7 is the square root of 49

## 5 points

To know square numbers up to $12 \times 12$ and their square roots: 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144 I know decimal number bonds to 1 and 10, e.g. What do I add to 0.8 to make 1 ? What is 1 take away 0.06? What is 1.3 less than 10? How many more than 9.8 is 10 ? What is the difference between 0.92 and 10?

Find factor pairs for any number, e.g. I know that 6 is a factor of 72 because 6 multiplied by 12 equals 72 .
I can recall metric $\quad$ Practise the times tables up to

1 kilogram = 1000 grams
1 kilometre $=1000$ metres
1 metre $=100$ centimetres
1 metre $=1000$ millimetres
1 centimetre $=10$ millimetres
1 litre $=1000$ millilitres

## B

## Reading regularly and questioning-at least 3 times a week

- Make a list of any new or tricky words you find - don't just move past them, ask and find out, like we do in class.
- There are questions your parents can ask you about your reading in the middle of your Reading Records, but you must justify (prove) your answers, i.e. "It says it here on page...!" like we do in class. Write down any comprehension (understanding) questions that either you or your parents have asked about your reading, e.g. Why does [character] do that? Then write down your answer underneath it and say which page or pages in your book you used to find the answer.


## 5 points

C
Learning and applying tricky 'statutory' spellings
You need to write down which words you've practised and the way you used to do it, e.g. bubble writing or look, say, cover, write, check.
Practise them both as separate words and in oral (spoken) or written sentences so that you understand how to use them.

## 5 points

| Create a detective story comic strip - Sir Arthur Conan Doyle's Sherlock Holmes stories started as short sections in a newspaper! It can be set in any time period and it doesn't need to be the whole story; it could start part-way through and not get to the finale. <br> 2 points | E <br> Draw simple real-life pictures, for example, just one of your fingers on a flat surface. Move away from face on cartoony or stick figures and try to see and draw the shadows and to move away from heavy outlines. Do the same object from different angles. <br> 2 points | F <br> Create an internet safety poster - what top tips would you give other children of your age about what to do or not to do on-line? Are there any recommendations you'd have for particular games, e.g. Fortnite, or for using certain platforms, e.g. X-box? 2 points |
| :---: | :---: | :---: |
| G <br> Do some scientific experiments with food stuffs found in the kitchen, e.g. does lemon juice or vinegar work better with bicarbonate of soda? What about baking powder? Which dissolves better, salt or sugar? How much? Can you explain it all clearly, giving evidence of why you think that? Really push the idea of a fair test. | H <br> Create an historical timeline of some famous detectives, e.g. Holmes, Poirot. Your parents may also have some ideas for more modern detectives, e.g. Inspector Morse or Inspector Clouseau. You can find dates easily enough, but make sure your timeline gaps are the right sizes, e.g. if 100 years $=10 \mathrm{~cm}$, then 48 years $=4.8 \mathrm{~cm}$. <br> 2 points | I <br> Be a nature detective: choose a 1 metre square of some outside space, which could just be in your garden, and see how many living things there are in that space. What is the best way to record the information: a table, a diagram? Repeat with a different 1 m square - how do they compare? <br> 2 points |

