
# Adventure... Bound!

## How can math help us understand our books and ourselves?

**Class Investigation: What different types of stories did people write?**

**Investigation 1 - Is it better to work next to your friends or alone?**

**Investigation 2 - How many words did Ms. Chown write?**
Can you find a way to work this out without counting every single word?

**Investigation 3 - Are you more productive working at a table or on the rug?**

**Investigation 4: How many words did we write?**
a) How many words did our class write for their stories?
b) How many words did our class write for their *about the author*?
c) How many words did they write altogether?

# Project Timeline

In order to use math to help us to learn more about ourselves and our stories, we need to conduct investigations. To help us get started, we will all work on the first one at the same time. Then we will choose our own investigation and spend time planning, gathering data, organizing and interpreting that data. We will also conduct two exemplars investigations. These will help us see how we can use the skills that we are gaining to help us learn about different things.

You might also notice that we are going to be spending quarter of an hour a day revising. Revision is like practicing - but you try harder to remember it. There is a lot to learn in math, so we will do this in order to help us remember everything we have learnt so far.

## Daily Schedule

| DAY | Investigation/Activity | Revision session (¼ of an hour) |
|---|---|---|
| Mon 5th Jan | **Class investigation**: what different types of stories did we write and how can we show this? (3 hours)<br>**Possible Habits of a Mathematician:** ask questions; think about what you know and what makes sense; organize your thinking and recording; collaborate, debate and listen; communicate your findings | **Subtraction strategies** (adjusting and landing on ten) |
| Tues 6th Jan | **Choose your own investigation**, gather data and make an action plan (2 hours)<br>**Possible Habits of a Mathematician:** ask questions; think about what you know and what makes sense; organize your thinking and recording; collaborate, debate and listen | **Subtraction strategies** (partitioning) |
| Wed 7th Jan | **Begin your investigation** (2 hours)<br>**Possible Habits of a Mathematician:** organize your thinking and recording; collaborate, debate and listen; challenge yourself: make mistakes and learn from them; be resilience - keep trying different strategies even when it gets tough | **Factors** |
| Thurs 8th Jan | **Finish your investigation** and **display your findings** so that they are easy to interpret by creating graphs and charts (2 hours)<br>**Possible Habits of a Mathematician:** ask questions; communicate your findings. | **Prime numbers** |
| Fri 9th Jan | Write **conclusions** and **present your findings** to the class (2 and ¾ hours)<br>**Possible Habits of a Mathematician**: ask questions; communicate your findings. | **Square numbers** |
| Mon 12th Jan | **Independent/paired investigation**: What is the most popular reading genre in our class? (3 hours)<br>**Possible Habits of a Mathematician:** ask questions; think about what you know and what makes sense; organize your thinking and recording; collaborate, debate and listen; communicate your findings | **Subtraction** (stacking method) |

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|---|---|---|
| **Tues 13th Jan** | **Finishing** details or extra challenges<br>**Possible Habits of a Mathematician:** TBC | **Expanding numbers** |
| **Wed 14th Jan** | **Exemplars** - Reading on a Tuesday night (1 ½ hours)<br>**Possible Habits of a Mathematician:** ask questions; think about what you know and what makes sense; develop theories; organize your thinking and recording; communicate your findings | **Prime/ Composite or Square?** |
| **Thurs 15th Jan** | **Exemplars** - Bean plants for Mother's Day (2 ¼ hours - including extra revision of feet and inches)<br>**Possible Habits of a Mathematician:** ask questions; think about what you know and what makes sense; develop theories; organize your thinking and recording; communicate your findings | **Multiplication** (grid method) |
| **Fri 16th Jan** | **Math challenge party** - celebrate the end of our first two weeks with a math party. There will be measurement, investigation, prime and square numbers on the computer, fractions and other challenges galore! (2 hours)<br>**Possible Habits of a Mathematician:** collaborate, debate and listen | **Subtraction** (which strategy? You decide!) |

*Note: times are based on Ms. Chown's best estimation only!*

**IMPORTANT NOTE:** YOUR 30 BOOK CHALLENGE RECORD SHEETS MUST BE COMPLETE BY THE END OF THIS WEEK (9TH). WE WILL BE USING THE DATA IN OUR INVESTIGATION NEXT MONDAY (12TH).

## Who Will I Work With?

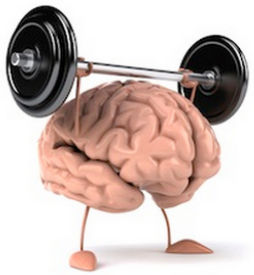
For the first investigation (what different types of stories did we write?) you will work by yourselves, as a class and in a pair. The second investigation will either be in pairs or individually. However, there will be other people who are working on the same investigation as you, so you can go to them for help and critique. When we move onto the Exemplars, you will work by yourself, with a half partner, or in a group with Ms. Chown - depending on how confident you feel.

## How Will We Share This Work So Others Can Learn From It?

We'll share it at our exhibition, later in January. When people come to our exhibition, they will be curious to know more about how we wrote the book. The results of your investigations will help them to learn more.

## How Will We Make Sure that Our Work is of the Highest Quality?

After we have conducted our first investigation, we will create a checklist of what we need to include in a high quality investigation and conclusion.



## Habits of a Mathematican Checklist

**Date**_____

**Activity** _____

| **Strong mathematicians...** | **Checked** |
|---|---|
| Ask questions | |
| Think about what you know and what makes sense | |
| Draw pictures and diagrams to help solve problems | |
| Look for patterns | |
| Organize your thinking and recording | |
| Develop theories, test them and then develop new theories | |
| Challenge yourself, make mistakes, learn from them | |
| Are resilient - keep trying different strategies, even when it gets tough | |
| Collaborate, debate, listen | |
| Communicate your findings | |

Over the course of these two weeks, how have you grown as a mathematician?

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**Coming up next… math magazine pages**