## Maths and Literature Treasure Hunt!

Resources: Pencil and Hunt List!
Time: 1 hour
Activity Overview: The themes of the Treasure Hunt are Literacy and Numeracy. Literacy includes the ability to use and understand spoken language, print, writing and digital media. Numeracy is the ability to use mathematics to solve problems and meet the demands of day-today living.

This library Treasure Hunt will give the students an opportunity to explore their local library in a way that they never have before. They will be prompted to discover different types of books and media, seek out resources and information that they may not know existed in a library, all while using their numeracy and problem solving skills.

To ensure that the game is enjoyable for everyone, emphasize that the library is a norunning, quiet voices place.

## Workshop step-by-step

1. Begin by facilitating a discussion about the library and its contents. See below for some questions and conversation starters.
2. Divide the class into manageable groups of 4 . Hand out a list of roles to each group. Everybody in the group should work together and decide on their roles. Roles include:

- Scribe / Reader
- Time Keeper and Manager
- Researcher x 2

Ask teachers for their involvement. Walk around to check progress
3. Hand out the Hunt List to each group. Stagger the starting questions. Group 1 starts on Q1, Group 2 starts on Q5, Group 3 starts on Q10 etc. This should ensure that not all groups are using the same resources at the same time.
4. Walk around to check understanding.
5. Remind students of the following:

They have 30 minutes to try collect as many clues as possible Everyone has a role and it is important to work together Remember no running and use quiet voices!

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## Discussion before the activity:

- What do we have at the library besides books?
- Do you think there are any types of books the library doesn't have?
- How many books do you think are here?
- What type of mathematics can be found within a library, do you think?
- Counting
- Measuring (space, time)
- Cataloging (books, members)
- Mathematics, among other things, is about PATTERNS. A pattern is a set of objects, numbers, letters, shapes, pictures, symbols or diagrams which repeat in a set way. Once we identify a pattern we are able to predict what will come next.
CAN ANYBODY GIVE ME AN EXAMPLE OF A REPEATING PATTERN?
- Days of the week, Months/seasons of the year
- Number patterns
- Alternating colour patterns
- Patterns in nature (flowers, butterflies, etc.)
- Geometric patterns on pavements, wallpaper, clothes, etc.

Patterns exist all around us in the real world if we know where to look. As part of the treasure hunt today we will be looking to see if we spot any patterns in the library.

- How do computers help in libraries?
- Locate books
- Research secondary data
- Printing
- Photocopying
- Contacting people


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## Discussion on Classification:

As part of the treasure hunt today we will be looking at clues that involve the classification system (grouping books together).

1) Why do you need a classification system in a library?

- To find a book and
- To know where to put the book back on a shelf so that others could find it.

2) What classification systems can you imagine?

- By colour
- By size
- By author
- By subject

3) What are some advantages and disadvantages of these systems?

The Dewey Decimal system is a system that classifies books according to subject.
The main classifications are:
000 - Computer science, information \& general works
100 - Philosophy \& psychology
200 - Religion
300 - Social sciences
400 - Language
500 - Pure Science
600 - Technology
700 - Arts \& recreation
800 - Literature
900 - History \& geography
Additional numbers are used for sub-categories of these categories.
For instance books on mathematics will begin with 510 to 519
512 would be algebra for example.
4) What other classifications could be used in our library?

| $\circ$ Children's | Young Adult |
| :--- | :--- |
| $\circ$ Crime | Thriller |
| $\circ$ | Romance |

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How does this library arrange fiction books? Fiction books can be sorted by author, alphabetically.
5) Why do you think this would be useful for many people?

- Because people often want to read more books from an author they like.
- Besides it might be difficult to decide what subject a novel most relates to.


## Discussion at the end of the workshop:

1) Go through what each group found out. In some cases (e.g. find a fiction book with more than 500 pages), each group will have a different result. Discuss why that is and why one answer is not better than the other.
2) In your opinion why is reading important?
3) In your opinion why is mathematics important?
4) Hand out evaluation and ask students to answer the questions.
5) Where do you leave a book if you don't know where it belongs?

Ask the students to clean up and hand in books they have taken off the shelves.

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## HUNT LIST:

1. Find out the definition of the word: ALGEBRA
2. Using a dictionary, find how many words begin with $X$
3. Write down the spine label of a science book:
4. What is the phone number for ChildLine?
5. Name the title and author of a fiction book with over 500 pages:
6. Using a dictionary or thesaurus, find three other words that mean SOLVE 1.
7. 
8. 
9. What are the opening and closing times of the library?

Opens at:
Closes at:
8. How many hours is the library open for during a regular week? (no bank holidays)
9. Find 2 books with numbers in the title
1.
2.

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10. Draw a map or a picture of the library.

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11. Find out about 3 upcoming events that will take place at your library?

| Event | Date | Time |
| :--- | :--- | :--- |
| 1. |  |  |
| 2. |  |  |
| 3. |  |  |

12. Find a book with a pattern on in. It could be made up of shapes, colours, numbers etc. Title:

Author:

Pattern:
13. What type of book does the following classification range refer to: 710-730
14. Where would you find technology books? Classification range $\qquad$
15. How many countries are there in South America?
16. Find a book that is part of a series

Title:
Author:
How many books in the series:
What is the series about?
17. Estimate the height of this room.

Height:
Explain how you went about estimating the height.

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18. Find something shaped like a circle, triangle, cuboid, cylinder

| Shape | Object in library |
| :--- | :--- |
| Circle |  |
| Triangle |  |
| Cuboid |  |
| Cylinder |  |

