

## Maths Newsletter Spring 2019

The focus for our maths work in school at the moment is the area of 'Using and Applying Maths' – put in simple terms this is all about taking what we have learnt in the classroom and putting it into practice in everyday life! It's about finding ways to solve problems! These problems may look like traditional maths activities but more often than not they don't.

### Definition

**Using and applying mathematics** is to be found in all aspects of the maths curriculum: number, algebra, shape and space, measure and handling data. It is where pupils use their knowledge and understanding of **mathematics** to *solve problems*. *It is being curious, seeking solutions, explore and try things out to see what works.*

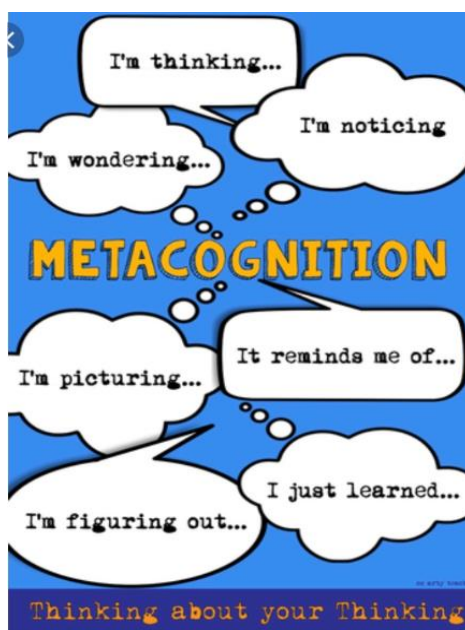
### Problem solving in everyday life is:

- *Finding the quickest route to where we want to go.*
- *Working out what time we need to leave to get to an appointment on time.*
- *Putting up a tent or making a set of shelves without any instructions.*
- *Working out how long we need to cook a cake for.*
- *Thinking out how much we have to spend in the supermarket and what we can afford to buy.*

**METACOGNITION** is something we are hoping to learn more about. It is very useful in maths with the problem solving work we are doing.

#### Metacognitions is .....

- ✓ 'Thinking about thinking'
- ✓ "Our job as teachers is not to 'prepare' children for something; our job is to help children learn to prepare themselves for anything."
- ✓ Fostering curiosity 'let's find out'
- ✓ Working out what they already know and building on it



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We want all our pupils to be expert problem solvers and you can help us at home. Here are some activities you can try over the holidays.

We are also looking forward to using our new playground soon so we are thinking about how we can use the space to develop learning in all curriculum areas through being outside!

All the following activities can be adapted to meet the needs of all our pupils. Handling and exploring materials mentioned in the ideas develops curiosity, persistence and offers opportunities for our pupils to initiate their own learning and investigate in a more sensory approach.

I would LOVE to hear about your experiences so please email me, send me photos or written work or write in your young person's home-school book for the teachers to pass onto me. I will be presenting certificates to any learners who complete a task so let's get busy with Maths and have fun!!!

[shudson@springwater.n-yorks.sch.uk](mailto:shudson@springwater.n-yorks.sch.uk) please put in the title 'Spring 2019 Maths'

I am happy to print photos and work if you don't have access to a printer!

Shelley Hudson – Lead Maths Teacher

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### Make a home big enough for a cuddly toy animal (or a human if you are feeling strong!)

Handle sticks, sort them into long, short, thick, thin, heavy or light.  
Are the sticks rough or smooth?

Measure the sticks with rulers and tape measures.

This is fun and a great team exercise enjoy talking about what you are doing and listening to each other's ideas.



### Go on a Wildlife / Nature hunt (some great resources on the nature detectives website)

<https://www.woodlandtrust.org.uk/naturedetectives/activities/search/?query=&sortby=date&count=10>

Take a list with images on to tick when you find them (matching)

Find shapes in natural environment.

Can they make shapes with twigs, sticks and leaves?

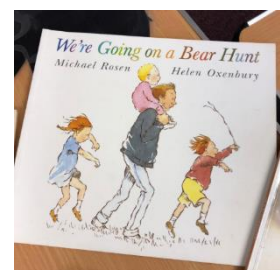
Can you make a circle with a bendy twig?

Can you sort out different leaves (colour, size or what tree they are from).



### Go on a bear hunt

Use the language over, under, through, big, small, light, and dark.



### Build a den in the house or outside in the woods!

Think about the language of length – long, short, centimetres and metres.

Use a tape measure or ruler if you can.

Can you make a den big enough for 2 people?

What can you use to hold the blankets up?



### How long will it take to fill a bucket?

Use cups and containers of different sizes from egg cups or thimbles to mugs and measuring jugs.

Does it take longer to fill the bucket if you use something small?

Use a sand timer, timer on a mobile phone or look at a clock.

Guess (Estimate) first and then check!



**Can I make a cake without weighing anything?**



**Who can buy the highest number of items with only £1**

**Can you make a 3 course meal for 1 person with £1?**



**Shape spotting.**

Get out into the community and take photos of shapes, can you find a circle shaped window or a triangle road sign?

Play 'I spy' with shapes.

Can you find any 3D shapes in your kitchen?



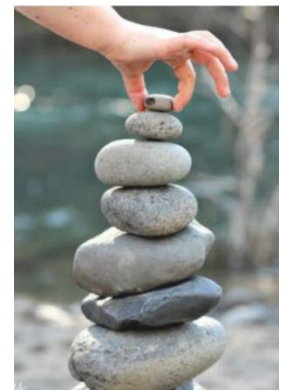
**Stone stacking**

Use the stones to count and talk about height and size!

How tall can you make your tower?

Who in your family can make the tallest tower?

Can you find a stone that is light and one that is heavy?



**Set the table for a meal.**

What do you need to get?

What should you do first?

How many people will be sitting at the table?

Where do the knives and forks go?





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### Sensory Stories to promote Maths Language and Using and Applying maths skills



#### Baby Bear Goes Camping.

##### Summary

Papa Bear and Mama Bear take Baby Bear on his first camping trip. After setting up their tents they go for a long walk. On their way Baby Bear meets an owl, a frog, a bat and an echidna. Later that night, after Baby Bear has gone to bed, he becomes frightened by shadows on his tent

##### What you need

Tents – different styles and sizes (the one in the picture is a 'dog tent' if you want to search for it)  
 Animals – hedgehog, owl, bat, frog  
 Recordings of animal noises  
 Stars and torches  
 Sleeping bag  
 Teddy

##### General Focus (PSHE, Science)

Tents – working together as a team to put them up (lots of opportunities for metacognition and PSHE work too), waterproofing (exploring materials – Science). Pushing and pulling the poles to get them in place, explore what would happen if it got very windy – would the tent blow away? (Science – Forces)

##### Maths Focus

Number - Counting the poles and tent pegs.  
 Addition and subtraction - Connecting the poles together.  
 Maths Language – on, under, through, across, top, middle, bottom, big, small, long, short  
 Shape, space measures – measuring the poles, sides, corners, shapes in the tent



### **Percy the Park Keeper – After the Storm**

#### **Summary**

A storm is raging outside and Percy the Park Keeper is having a sleepless night. When he gets up the following morning, Percy finds that the old oak tree has been blown down. It is a disaster for his animal friends who live there, but Percy is soon devising a plan to help his little friends find new homes in the best tree house they have ever seen!

#### **General Focus (Geography, Science, PSHE)**

Weather – rain, wind

Trees – root, branches

Habitats

Light / Dark (deep dark wood)

Bridges

Boats – float and sink

Planting (after the storm)

Emotions work (how did they feel when their homes were destroyed?)

Current affairs / natural disasters.

#### **Maths focus**

Language – over, under, through

Counting animals, trees and other features

Heavy / Light (carrying wood)

Measuring wood and twigs etc to make new homes for the animals.