

Welcome to PHP

Maths Workshop for Families

September 27th 2022

Just for fun, while you are waiting....join in if you like.

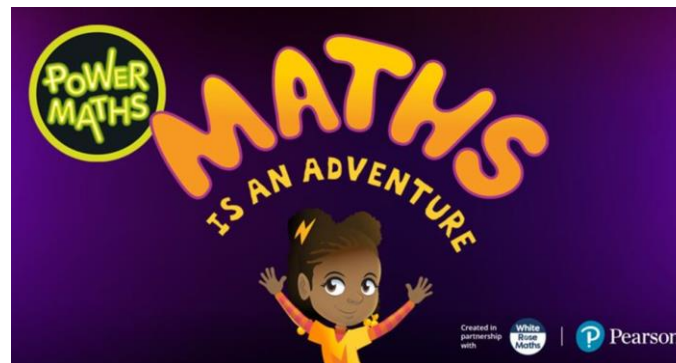
What are the next terms of any of the following sequences?

6, 11, 16, 21, 26, ... 31, 36, 41, 46 Rule: add 5 each time

10, 19, 28, 37, ... 46, 55, 64 Rule: add 9 each time

1, 4, 9, 16, 25, ... 36, 49, 64 Rule: square numbers

1, 1, 2, 3, 5, 8, 13, ... 21, 34, 55 Rule: add each pair of terms, to get the term which follows. The Fibonacci Sequence.



TEST!

Why are we here?

- ✓ How your children learn maths in school (Mastery Maths).
- ✓ Why we do things this way.
- ✓ How you can help your child to be successful in their maths learning.

We also want to give you the opportunity to ask questions about anything which remains unclear. If you would like to do so privately, please write your question on the feedback form. Alternatively, you can message either myself, or your child's class teacher

What is Mastery Maths?



- ▶ Mathematics Mastery was founded by Dr Helen Drury - a pioneer of teaching and learning for mastery in UK schools. Helen researched how maths education could be improved to break the UK's cycle of underachievement. This research, evidence and best practice became the foundation for the Mathematics Mastery programme.
- ▶ Dr Drury was struck by the success of maths teaching in Shanghai and Singapore, where teachers have high expectations for all pupils and attainment in maths is excellent.
- ▶ At PHP we have worked with a Maths Hub to develop our Mastery Maths teaching.

National Curriculum for English schools.

Encourages depth before new content

In line with the mastery approach.

It divides all of maths learning into three key areas.

Fluency: the ability to recall and apply knowledge rapidly and accurately (see KIRFs).

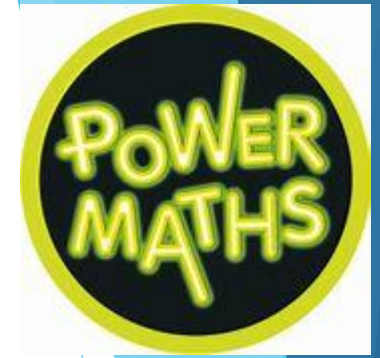
Reasoning: the ability to explain their mathematical thinking.

Problem solving: the ability to apply their knowledge to solve problems in varied contexts.

At PHP we use a scheme called **Power Maths** to deliver all three areas.

What is Power Maths?

- ▶ An exciting and innovative Maths scheme of work (it is DFE approved).
- ▶ It places emphasis on depth of understanding.
- ▶ It gives lots of practical opportunities to explore new concepts (CPA).
- ▶ It is an investigative approach.
- ▶ It fosters growth mind-set ... everyone can do maths!
- ▶ It is written specifically for UK schools.



At the heart of Power Maths are the characters, which encourage a positive attitude to maths.



Dexter

Dexter is determined. When he makes a mistake, he learns from it and tries again.



Flo

Flo is flexible and creative. She often comes up with new methods.



Ash

Ash is curious and inquisitive. He loves to explore new concepts.

Sparks

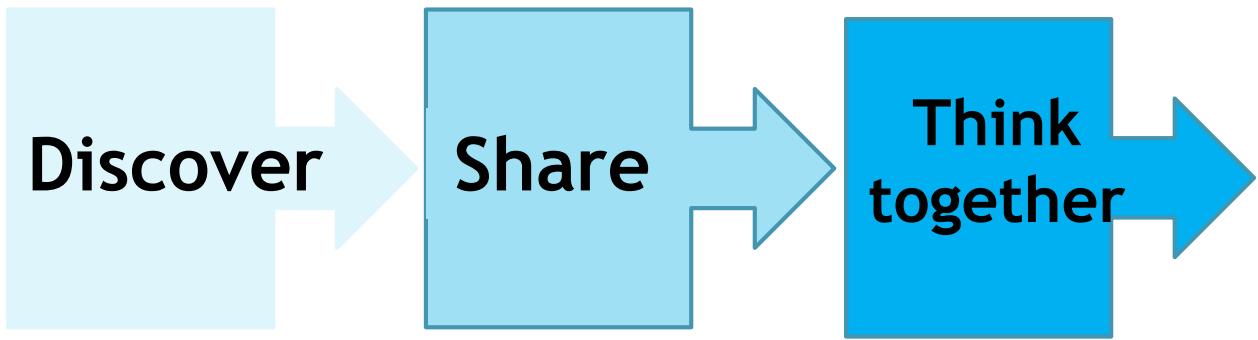
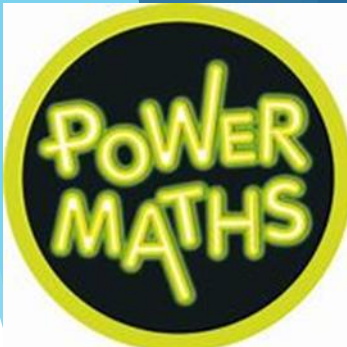
Sparks is helpful and supportive. He will remind you of things that may help you.



Astrid

Astrid is brave and confident. She is not afraid to make mistakes.

Structure of maths lessons from YR-6.



Talk, discuss, explore, model, represent, solve problems.



Number fluency including KIRFs & precise vocabulary



Discover



How many  are there?


YR

Share



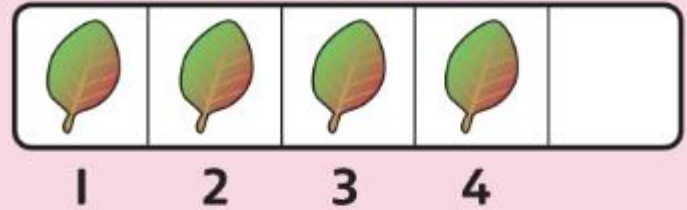
How many  are there?




I can see how many  without counting.



I will use a to check.



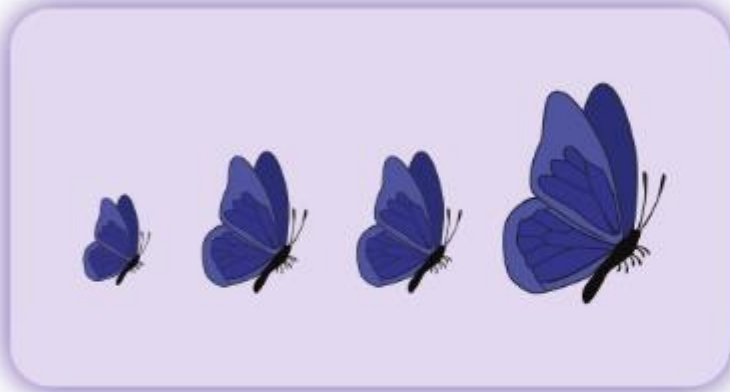
There are 4 .

YR

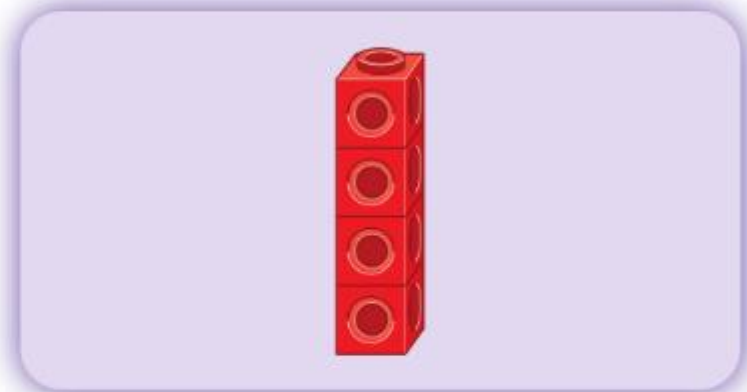
Think together



1 How many  are there?



2 How many  are there?



Use a
to help you.

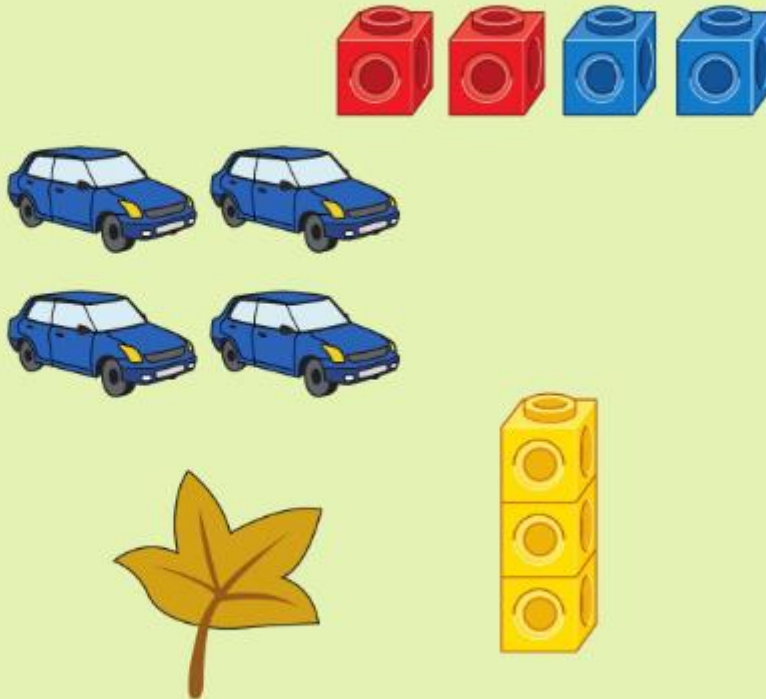
I think the answer
is the same.




YR

CHALLENGE

Which pictures show 4?



Does it matter if the  are different colours?



I will use a

--	--	--	--

 to help me.



YR

Represent numbers to 1,000

Discover



- How many bulbs need to be planted?
- Make this number with base 10 equipment.
How many 100s, 10s and 1s did you use?

Share

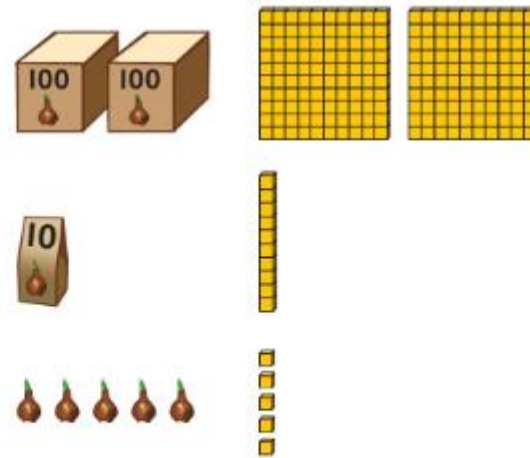
a)

I will start by counting the boxes of 100.



There are 215 bulbs to be planted.

b)



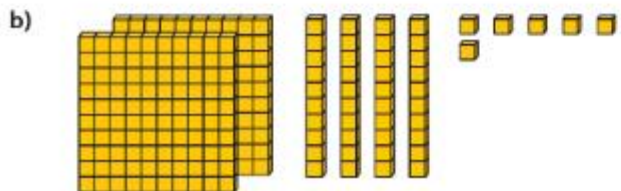
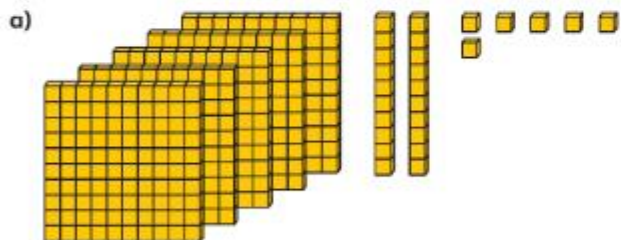
215 has 2 hundreds, 1 ten and 5 ones.

Think together

- 1 How many sunflower seeds are there?



- 2 What numbers are represented by this base 10 equipment?



- 3 Here are three digit cards:



Use the cards to make some 3-digit numbers.

- Use base 10 equipment to make your numbers.
- How many 100s does each number have?
- How many 10s does each number have?
- How many 1s does each number have?



I wonder how many numbers I can make with these cards.

CHALLENGE

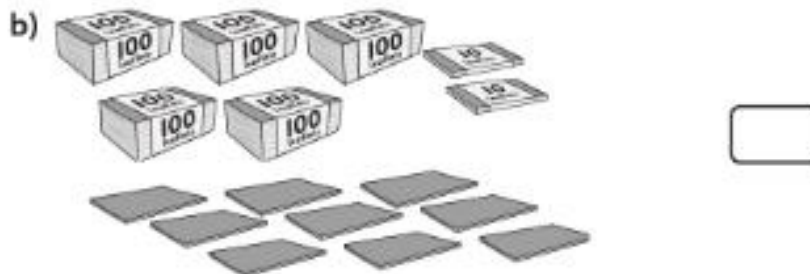
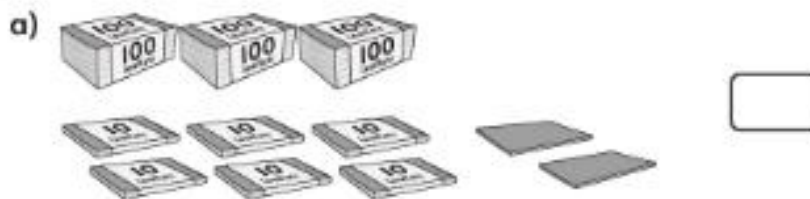
Y3

Represent numbers to 1,000

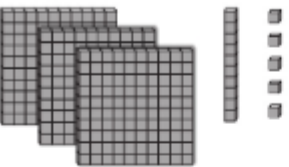
1 How many sunflower seeds are there?

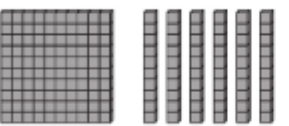


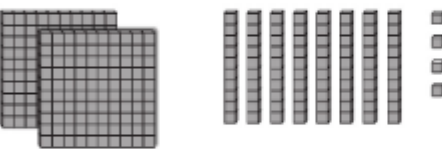
2 How many leaflets are there?

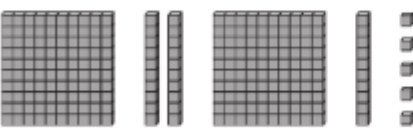


3 Write the numbers shown here.

a) 

b) 

c) 

d) 

4 Make the number 263 with base 10 equipment.

a) How many 100s in 263?

b) How many 10s in 263?

c) How many 1s in 263?

5 Lou makes a 3-digit number with base 10 equipment. 

She uses 4 hundreds.

She uses 2 tens.

She uses 9 ones.

What number has she made?

6 Olivia has three digit cards.



How many different 3-digit numbers can Olivia make?



Reflect

Write a 3-digit number.

Make your number with base 10 equipment.

How many 100s does it have? How many 10s? How many 1s?

●																				
●																				
●																				
●																				

How can I help at home?

- ▶ Fluency and quick recall of arithmetic skills with a particular focus on KIRFs. Your child's class teacher will give you more details of these.
- ▶ Look for opportunities to apply maths skills in real life situations (shopping, cooking, **telling the time**, planning routes, board games, card games).
- ▶ Check out the calculation policy on our website, to better understand some of the strategies your child is using in school.
- ▶ **Encourage a growth mindset– EVERYONE CAN DO MATHS.**

We are now going to break off into different groups according to the age group of your children, so that you can look at some of the materials for yourself. You are welcome to attend more than one year group as appropriate for your family.

When you have finished, please fill in a feedback form.

Thank you for your attendance, we look forward to working together to support your children's learning.