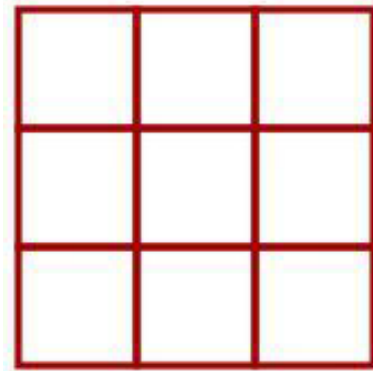


Warm up

Dotty 6



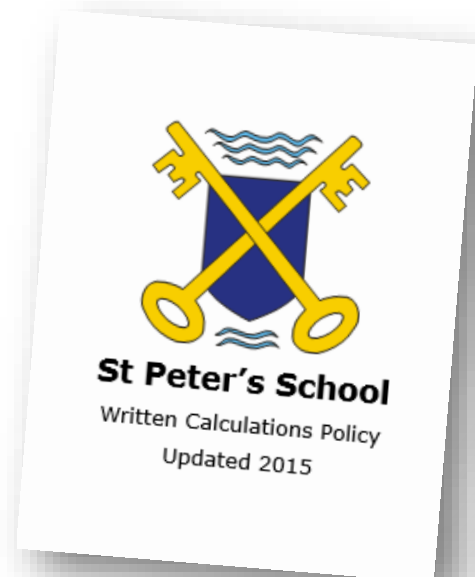
Consider what maths skills you are using when playing this game.

How could you adapt the game



Aims

- To get an insight into how Maths is taught at St Peter's.
- To become more familiar with the methods used to teach calculations.
- To take away some ideas to support your child at home.



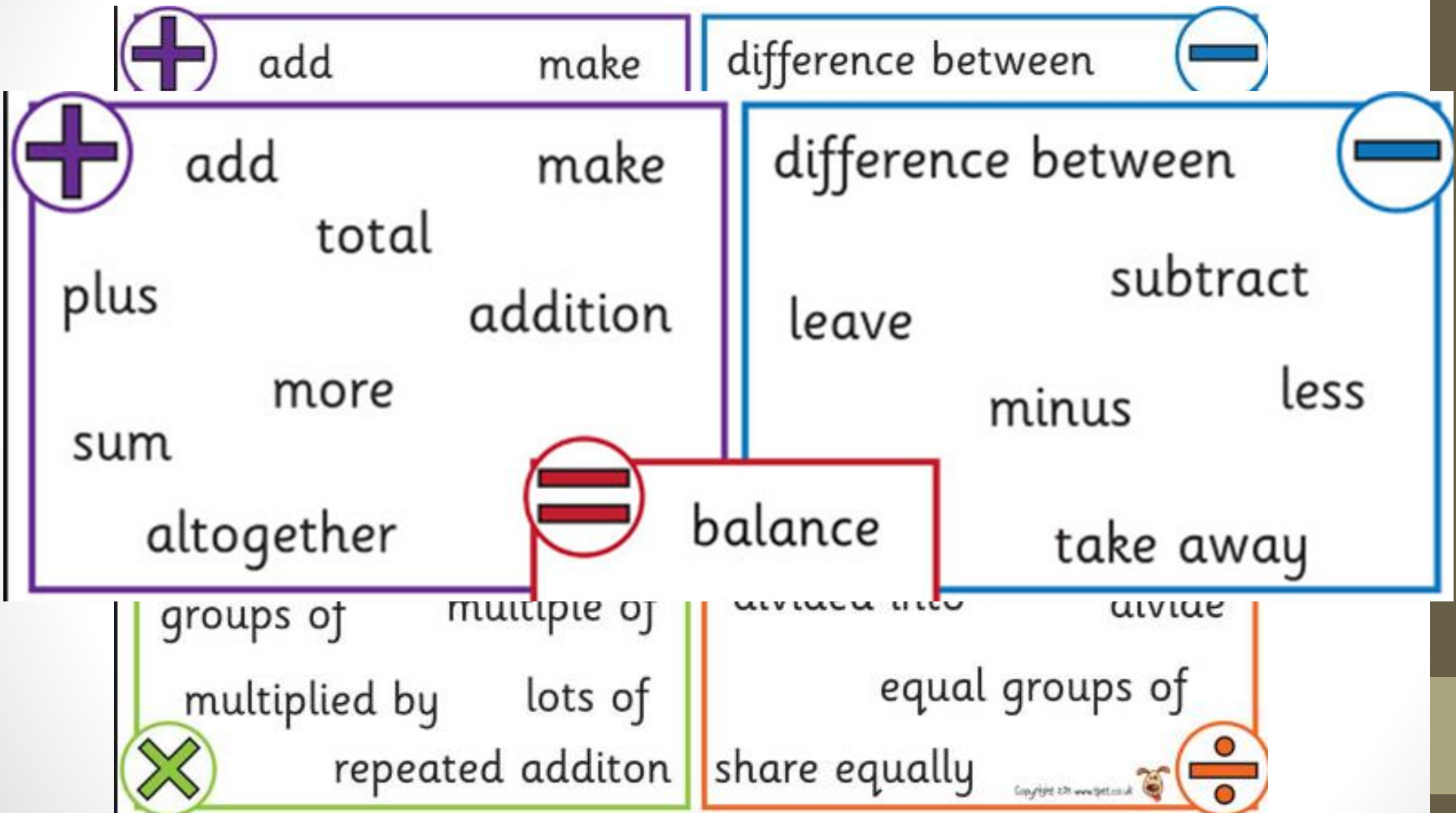
National Curriculum

Children should:

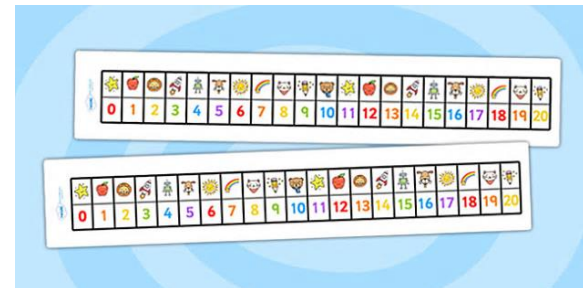
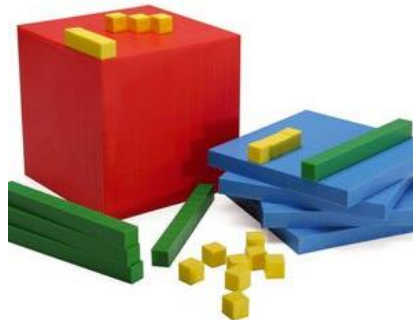
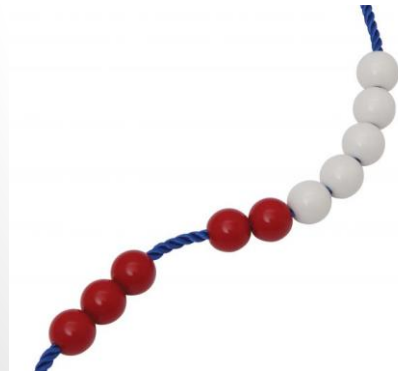
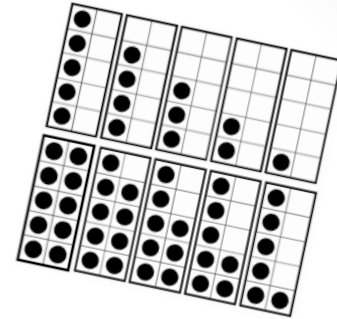
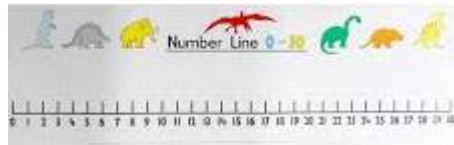
- Become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **Reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations and developing an argument, justification or proof using mathematical language.
- **Solve problems** by applying their mathematics to a variety of problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.



Addition and Subtraction



Concrete apparatus



Number Sense

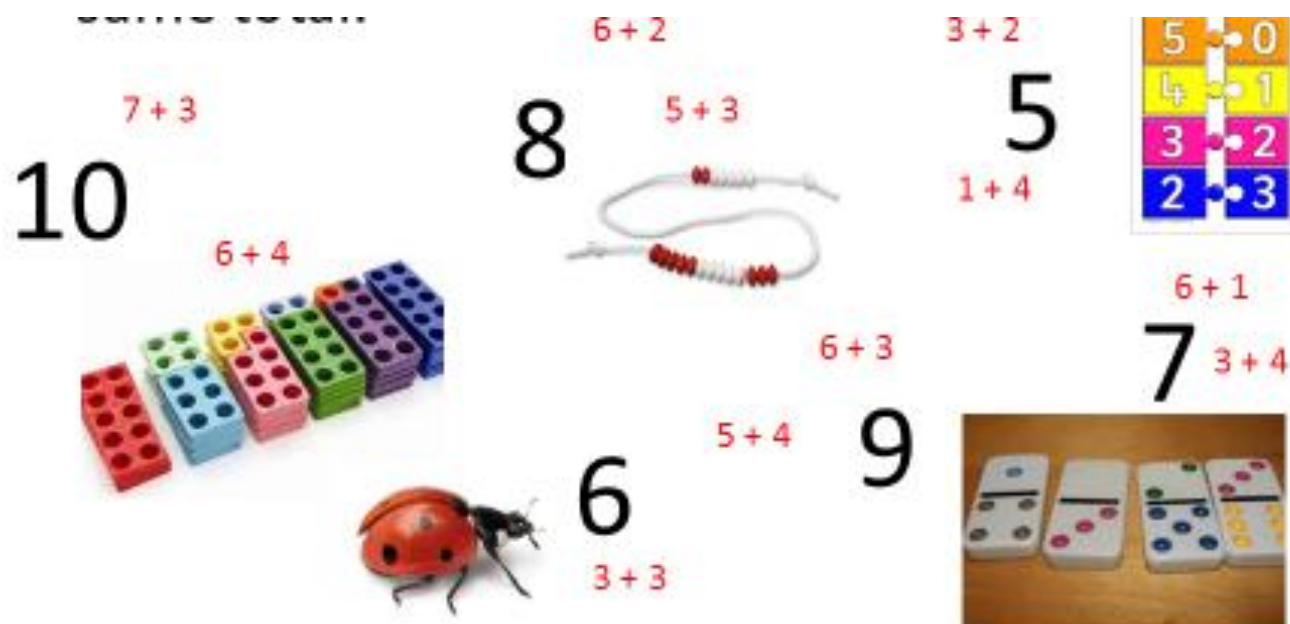
Children need to understand our number system, starting with counting numbers, building an understanding of how our numbers work and fit together. This includes exploring place value and comparing and ordering numbers then applying this understanding in different contexts.



Recalling facts

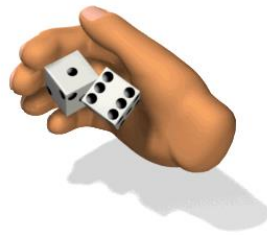
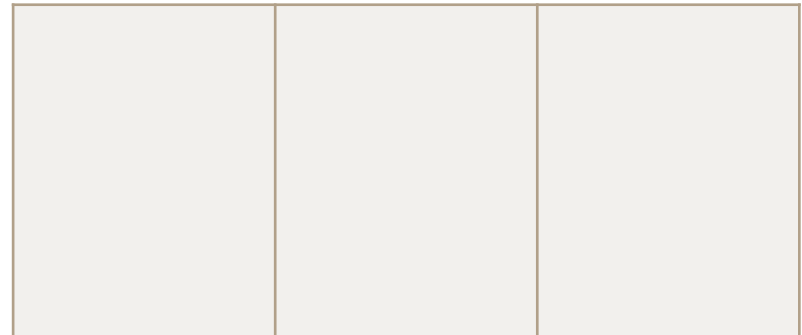
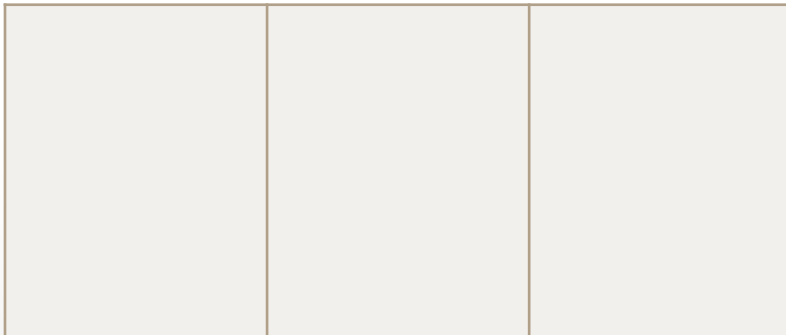


- It is important that children recognise number bonds, different pairs of numbers with the same total.

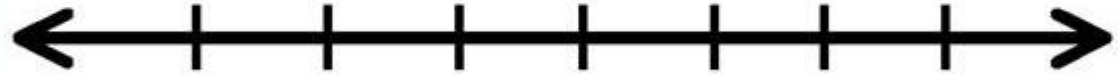


Place Value

- Place value is at the heart of the number system. All digits have a value and a secure understanding of this will enable children to use and understand different calculation methods.



Line up



- Players take it in turns to throw the dice. Either throw the dice three times or use three dice.
- •First throw represents the H, second throw the T and third throw the Ones.
- •Plot the 3-digit number on a blank number line.
- •First to get 4 in a line without opponent's numbers in between wins.
- •Variation: You can choose which throw (or dice if you are using 3) is the H, the T and the Ones. This can bring in more strategic thinking.



Addition – Practical

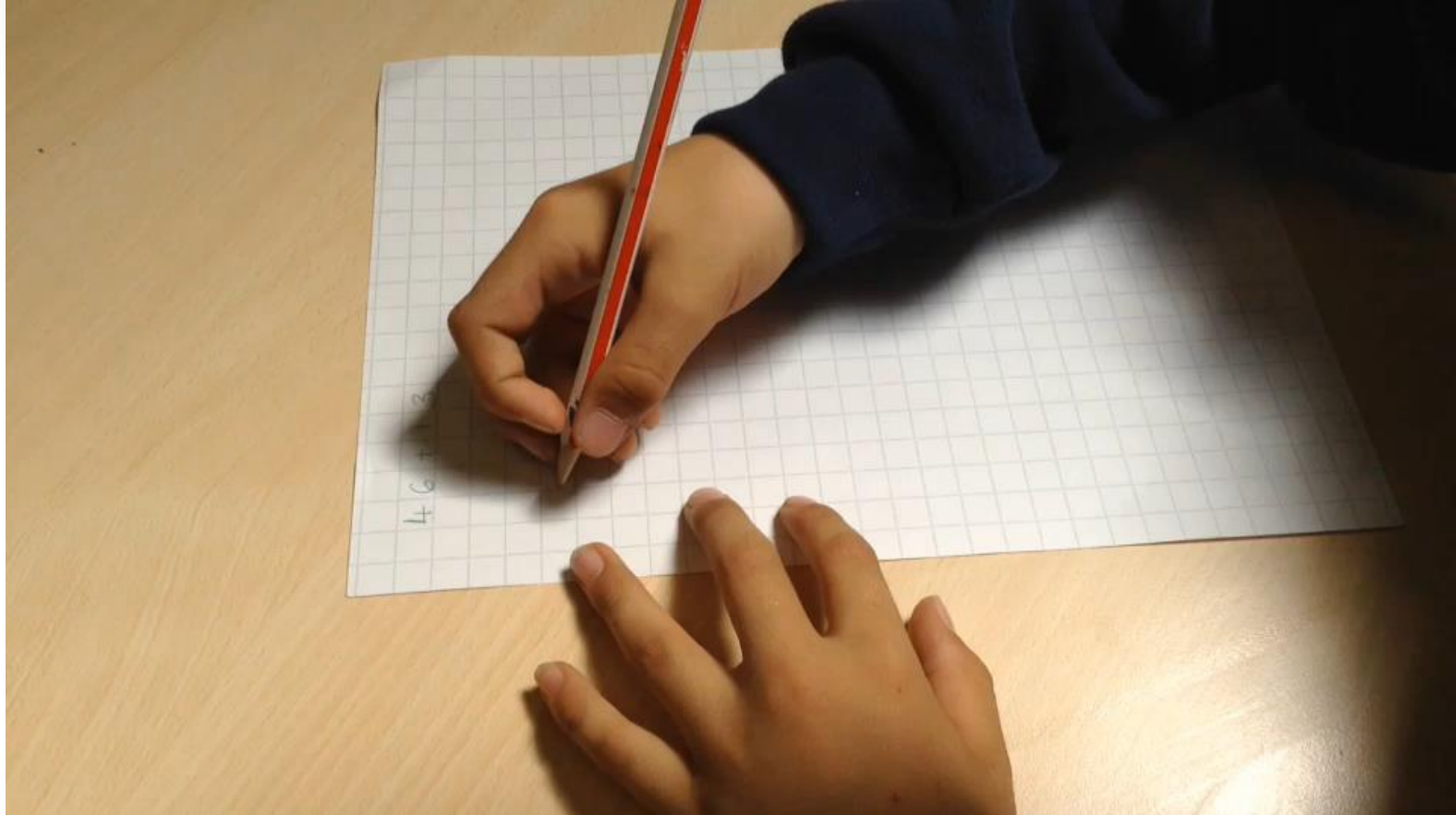


Addition - Written

- Blank number line
- Expanded column method
- <http://www.stpeters.herts.sch.uk/maths-1/>



Expanded Method



Have a go

$43 + 38 =$

Taken from Year 2 SATs paper

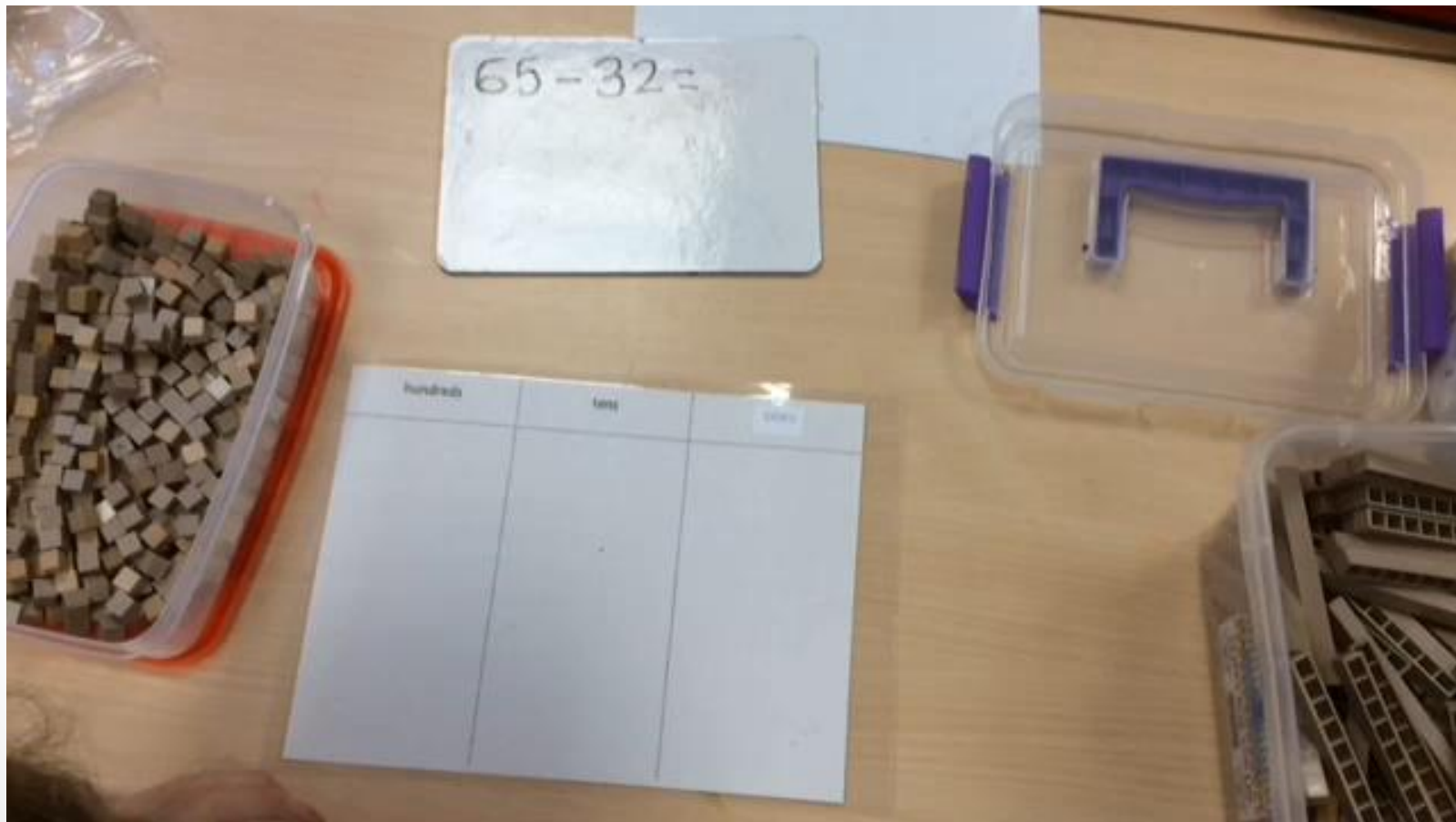
$55 + 17 =$



1 mark

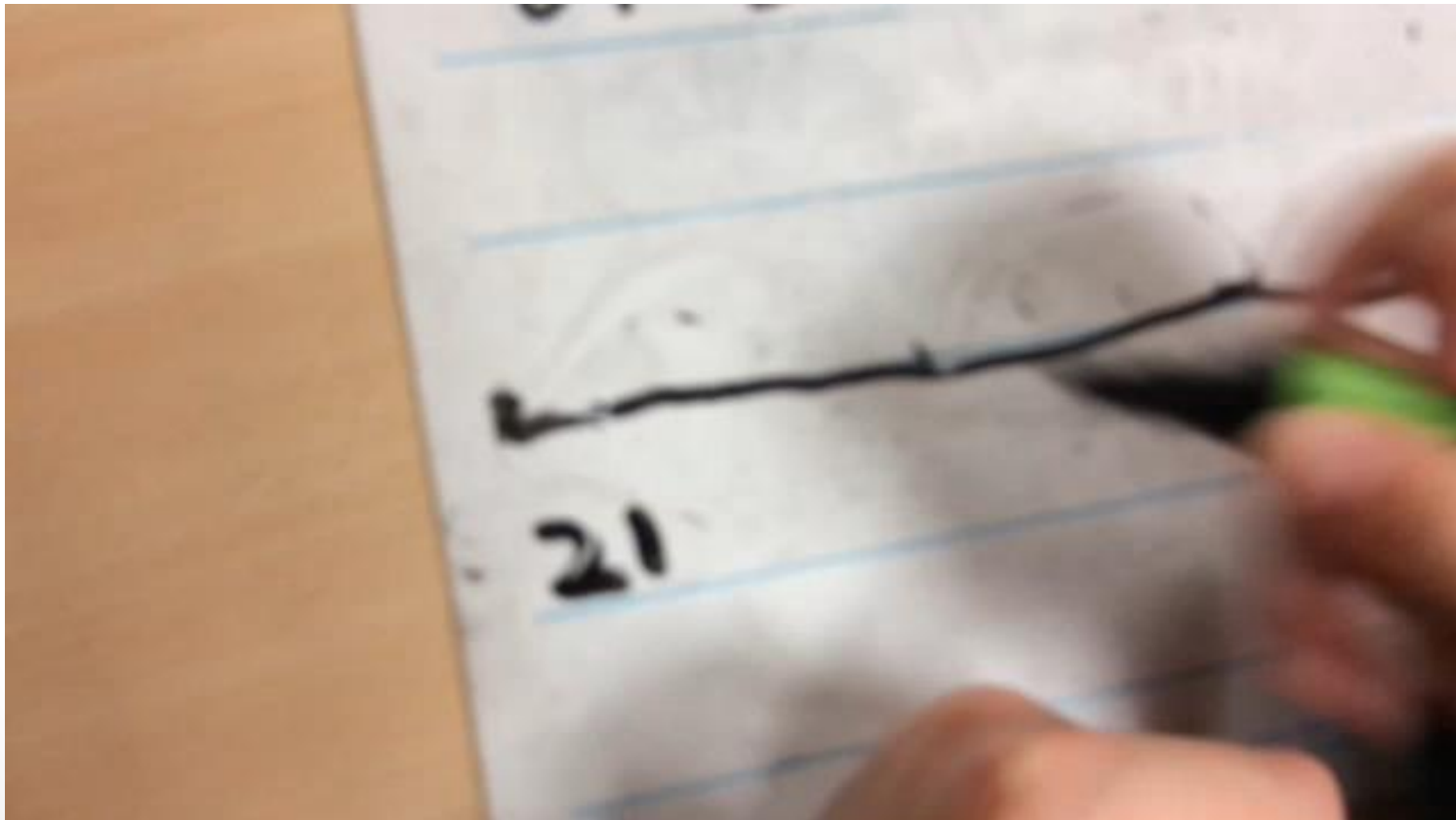


Subtraction – Practical



Subtraction – Written

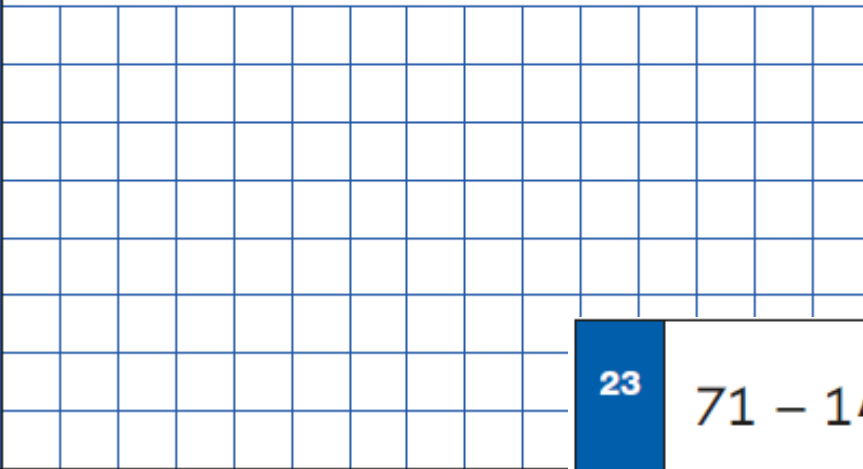
Subtraction by counting on



Have a go

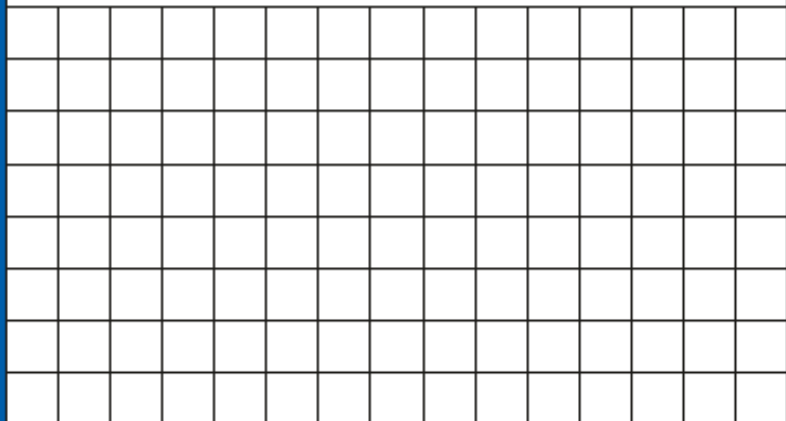
20

$86 - 21 =$



23

$71 - 14 =$

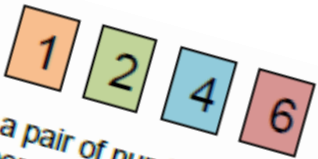


1 mark



What next?

Write a pair of numbers that add together to make 8. How many pairs can you find? Are you sure there aren't any more?

-  Pick a pair of numbers. Add them together. Write the numbers and the answer. How many different totals can you make?
Choose a pair of numbers and take away one from the other. How many totals can you make now?

Which four number sentences link these 3 numbers?

3 4 7

- **True or False?**
These four calculations have the same answer.
 $7 - 3 - 2$ $2 - 3 - 7$
 $3 - 2 - 7$ $7 - 2 - 3$

Use cubes to help to explain your answer.

Sam says 'I am thinking of a two digit number, if I add ones to it, I will only need to change the ones digit.' Is he right? Explain your answer.



Maths at home

- **•A prominent clock-** digital and analogue is even better. Place it somewhere where you can talk about the time each day.
- **•A traditional wall calendar-**Calendars help with counting days, spotting number patterns and
- **•Board games that involve dice or spinners-**helps with counting and the idea of chance
- **•A pack of playing cards-** Card games can be adapted in many ways to learn about number bonds, chance, adding and subtracting
- **•A calculator-** A basic calculator will help with maths homework when required, there are also many calculator games you can play, too.
- **•Measuring Jug-**Your child will use them in school, but seeing them used in real life is invaluable. Also useful for discussing converting from metric to imperial
- **•Dried beans, Macaroni or Smarties-** for counting and estimating
- **•A tape measure and a ruler-** Let your child help when measuring up for furniture, curtains etc
- **•A large bar of chocolate** (one divided into chunks)- a great motivator for fractions work
- **•Fridge magnets with numbers on-** can be used for a little practice of written methods
- **•Indoor/outdoor Thermometer-** especially useful in winter for teaching negative numbers when the temperature drops below freezing
- **•Unusual dice-** not all dice have faces 1-6, hexagonal dice, coloured dice, dice from board games all make talking about chance a little more interesting
- **•A dartboard with velcro darts-** Helps with doubling, trebling, adding and subtracting.



Final Word



Resources for support

- Existing school publications
- <https://www.oxfordowl.co.uk/for-home/maths-owl/maths>
- Variety of picture books
- www.topmarks.co.uk
- <http://www.stpeters.herts.sch.uk/maths-1/>



Questions

Thank you.



Dyscalculia – Definition

- "Dyscalculia is a condition that affects the ability to acquire arithmetical skills. Dyscalculic learners may have difficulty understanding simple number concepts, lack an intuitive grasp of number, and have problems learning number facts and procedures. Even if they produce a correct answer or use a correct method, they may do so mechanically and without confidence."
- Guidance to Support pupils with Dyslexia and Dyscalculia Ref: DfES 0512/2001

