

NUMBER



1. Number Hunt

Choose or make a number using the resources. Can you use natural objects to make and represent that number in different ways? For example, you might use leaves for tens and pebbles for ones. How many different ways can you represent that number?

2. Pairs

Create matching pairs of number representations using resources or natural objects. For example, can you make the same number using place value counters and number frames?

3. Higher or Lower

Work with a partner for this activity. One person should start by making a number using the resources. They can then challenge their partner to make a number that is either higher or lower than their number. What numbers could it be? Record the numbers and use an inequality symbol to show which is greater than or less than the other.

4. Guess My Number

Play this with a partner or in a small group. One person must choose a number and make it using the resources, but keep it hidden for now. The other people must ask questions that have a yes or no answer to help them guess the number, e.g. is it greater than 5? Is it a multiple of 10? Keep asking until one player guesses correctly. See how many questions it takes to guess the number.

5. Time to Talk...

- What is your favourite number and why?
- When you make a number using different representations, what is different? What is the same?
- What is the biggest number you can make with the resources?



CALCULATIONS



1. Countdown

Choose a target number and write it down for everyone to see. Use the resources to make 6 numbers that can be used in your calculations. Try to make the target number using just the numbers and any of the 4 operations. Is it possible to make your target number?

2. Create a Calculation

Collect natural resources or use resources from the kit to create a calculation for a partner to solve. You could use operation cones, numerals, number frames or sticks, stones and leaves to represent numbers.

3. Higher or Lower

Use a large 100 square and some beanbags or natural items to mark out different multiplication patterns. For example: • Can you represent the 2x, 4x, or even 9x table? • What do you notice? Are there any patterns you can spot? • Can you predict what the next number will be?

4. Switch It Up

Use the resources to make a number sentence. You could include +, -, x or ÷. Now try and create another calculation using the same numbers. For example $2 \times 4 = 8$ could become $8 = 4 \times 2$ or $8 \div 4 = 2$. How many fact families can you find?

5. Time to Talk...

- How can we use the resources to help us find the answers to different calculations?
- Which resources do you like using the most and why?
- Which operation do you find the easiest and which do you want more practice with?



MEASURE



1. What Shall I Measure With?

Create a list of items to measure in your outdoor space. Talk about and decide what resources you could use to measure each item? Could you use a trundle wheel, a ruler or possibly even your feet?

2. Non-Standard Units

Explore the different maths resources and sort them into which could be used for standard and non-standard units of measure. Choose some different items in your outdoor space and measure them using a non-standard unit of measure. For example, how many counters tall are you? Or how many number frames long is one brick? Spend time talking about what you find out on your measuring adventure.

3. Standard Units

Explore the resources and find the ones you could use to measure in standard units. Choose some different items in your outdoor space and measure them using one of these resources. You could find out how many cms tall you are or how long the playground is. Compare the length and width of different items around your outdoor space.

4. Estimate and Measure

Try this activity with a partner or in a group. Choose an item and each of you must estimate how long you think it is. Write down your estimates and keep them safe. Use the resources to measure accurately and find out who was closest with their estimate.

5. Time to Talk ...

- What is the smallest thing you can measure outside?
- What is the biggest thing you have measured outside?
- What different equipment can we use to measure with?



ACTIVE MATHS



1. How Many Times?

Set yourself a physical challenge. It could be anything you like, such as how many times you can throw and catch a ball. First, estimate how many times you think and then try out the challenge and count to check.

2. Create A Game

Use the resources to create your own mathematical game or challenge. You could link it to an area of maths you have been learning about recently. Be sure to think about the rules and instructions for how to play. Invite a group of friends to have a go at playing your game.

3. Targets

Layout a selection of numbers or number tiles to create your targets. Throw 4 beanbags at the numbers and see which ones you land on.

Can you: • Add up the numbers to find the total? • Put the numbers in order? • Think of a number fact for each one? • Why not set up your own target game with a different resource?

4. What's The Answer?

Lay out a selection of numbers on the floor. One person should think of a calculation that's answer is one of these numbers. When they read out the calculation, the other players must try and find and jump on or stand next to the answer as quickly as possible.

5. Time to Talk ...

- Which is your favourite active maths challenge?
- What do you like about learning maths outdoors?



PROBLEM SOLVING



1. Missing Numbers

Create a calculation or number sentence, but miss out one of the numbers or symbols, for example $2 + ? = 6$. Set a friend a challenge to try and find the missing number. Can they create a missing number challenge for you in return?

2. Hunt That Number

Set up a number trail for your friends using the resources. Start by creating a list of calculations or problems. Hide the answers to these around your outdoor environment - be careful that no one sees where you hide them. Share with your friends one problem at a time. They must first solve it and then hunt down the answer you have hidden. You could record how long it takes for them to solve all of the problems.

3. What's The Calculation?

Choose a number and write down as many different calculations as you can that would have this answer. For example, 12 - you could have $10+2$, 6×2 , $24 \div 2$. Add an extra challenge by trying to find as many as you can in one minute. Can you find a calculation for each operation?

4. Shapes

Try out this activity with a group. Start by drawing a selection of shapes on the playground using chalk. One player should then call out a property of one of these shapes, for example I have 4 sides. All the other players should then run to stand in a shape outline that matches that property. Could there be more than one shape?

5. Time to Talk...

- What are your problem solving top tips?
- What helps us to solve mathematical problems?
- Which of the resources did you use to help you solve the problems?

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21	22	23	24	25	26	27	28	29	30
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91	92	93	94	95	96	97	98	99	100

