## Outdoor Maths Challenges for KS1 children

How many challenges can you complete? Tick them off as you go.

| Make a target in the garden using old towels or sheets layered on top of each other. Give each section a score. What is the highest number you can score? Can you challenge your family? | Make a repeating pattern using pebbles, leaves, twigs etc. <br>  | Fill bottles with water and make your own bowling game. Give each pin a number and add them together to see who can get the highest score. | Go on a shape hunt outside. Make a list or take a photo of all the 2D and 3D shapes you can see. Which is the most common shape? Are there any shapes you can't find? | Build a den with objects you find outside. Try different designs. Which is the most stable? What shapes have you created? |
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| Find an outdoor object (e.g. - a plant, garden chair etc.) that is exactly the same height as you. Now look for objects which are about double or half your height. | Set up your own obstacle course using things in your home or garden. How fast can you move around the course? Make an estimate and then test it out. What was the difference between your guess and the answer? Can you improve your time? | Use sticks or a skipping rope. What 2D shapes can you make on the ground? Draw or photograph each shape you make. | Carry out a bird survey in your garden or from your window. List or draw the different birds you see and use a tally mark to record each time you see one. <br> Which is the most common bird? Which is the least common? <br> What other surveys could you carry out? | Draw a map of your garden or local park. Start by drawing the outline and then draw symbols to show features like play equipment, sheds and trees. Record your symbols in a key. |

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| Use a small box such as an empty match box. How many different (nonliving) items from your garden can you fit in your box? How did you decide what to include? | Find a fairly straight stick and use it to measure other outdoor objects (e.g. - plants, play equipment, outdoor furniture). Can you find an object which is twice as long or tall as your stick? What about ten times as long or tall? Etc. | Make a symmetrical pattern using outdoor objects like pebbles and leaves. Use a stick to form your mirror line: | Look for outdoor patterns (e.g. - on leaves, buildings, on insects). Can you describe or draw the patterns carefully? What shapes can you see? Do any of the patterns repeat? | Here is an array made up of 12 pebbles: <br> Can you copy the array? Can you make a different array using the same number of pebbles? Remember to make your groups equal. How many different arrays can you make using different numbers of pebbles or other outdoor objects? |
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| Make a tower of pebbles. How many pebbles can you balance before it collapses? Which are the best pebbles to use? | How many times can you throw and catch a ball without dropping it? Make an estimate and then test it out. What was the difference between your guess and the answer? | Make a collection of outdoor objects (e.g. twigs, pebbles, leaves etc.). <br> 1) Arrange them in a line from smallest to largest. <br> 2) How could you sort your objects into groups? | Make a small goal in the garden. How many times can you score in one minute? Can you beat your score? | Go on a bug hunt. Record your findings with a tally chart. Where do you find the most bugs? Why do you think this is? |

