Indoor and Outdoor Maths challenges

I love maths so much! I think one of the reasons I love it so much is because it is everywhere and in so many things that we do. I wonder how many of these challenges you can complete over the summer; why not tick them off as you go. I bet you can do all of them and I bet most of them will be great fun. Why not take some pictures as you complete challenges, I would love to see them, email me at violet@margaretroper.croydon.sch.uk.

Have a wonderful summer

Miss Holloway

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.

Design a treasure hunt for a family member to do. Write instructions using positional language (e.g. – walk forwards 6 paces, turn 90° anti-clockwise…). Can they follow the instructions to reach the 'treasure'?

Keep a weather diary. Design a key and use symbols to record the weather each morning and afternoon. Find the temperature from the TV weather or the internet. What is the difference in temperature between the warmest and coldest day? What other mathematical questions could you ask and answer?

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. Which is the most common bird? Which is the least common? What other surveys could you carry out?

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?

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 sundial with a paper plate marked like a clock and a pencil or stick: On a sunny day, turn your sundial until the time is correct. Check it throughout the day.

Look around your kitchen. What maths can you see? Draw or photograph each item you spot. Now try other rooms. Which room contains the most maths?

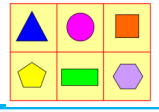
Design some 'one minute challenges' and try them out. Can you beat your score? Here are some ideas to get you started. Set a timer to measure a minute and record your scores: How many star jumps can you do? How many words can you read? How many words can you write?

Look for outdoor patterns (e.g. – on leaves, buildings, on insects). Can you describe or draw the patterns carefully? What shapes can you see?

Make up a secret code with a key (e.g. – A = 1, B = 2 etc. or draw a symbol for each letter). Write a message for a family member or to send to a friend. Don't forget to give them a copy of the key!

Make your own 'top trump' cards. Choose a theme you are interested in (e.g. – football players, dinosaurs, capital cities, characters in your favourite TV programme). Think of five categories and include scores for each category on each card. Play with a family member.

Use a piece of rope, string or ribbon. What 2D shapes can you make on the floor? Draw each shape you make and mark any lines of symmetry.



Use Lego/Duplo bricks, building blocks or empty boxes etc. Build the tallest tower possible. Measure your tower using your hands or a ruler/measuring tape. Can you build a tower as tall as you or even taller?

Make a repeating pattern using pebbles, leaves, twigs etc.