

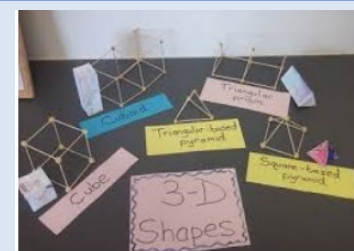
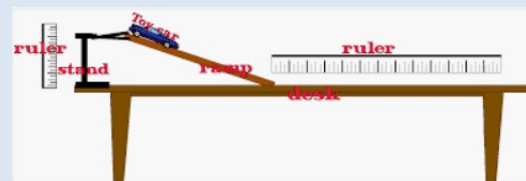


Maths Challenges 2

1. Create a car track. Use strips of cardboard or tape to mark the edges of your road. Measure the length of each straight section of your track. Then add to find the total length of the straight road. How could you measure the bends?



2. Can you make a car ramp? Slide your cars down the ramp and see how far they travel. Measure the distance. Then change the height and angle of the ramp. What happens to the distance the cars travel? Cover your ramp in some old cloth. What happens now? Why?



3. Can you make 3D shapes using spaghetti? Use marshmallows, blu tack or plasticine at the vertices. Then label and record their properties: edges, faces, vertices.

4. How many ways can you make 1000 using 3 numbers or 4, 5, 6, 7, 8 and 9?

E.g.

Using 3 numbers:

$$30+70+900$$

Using 9 numbers:

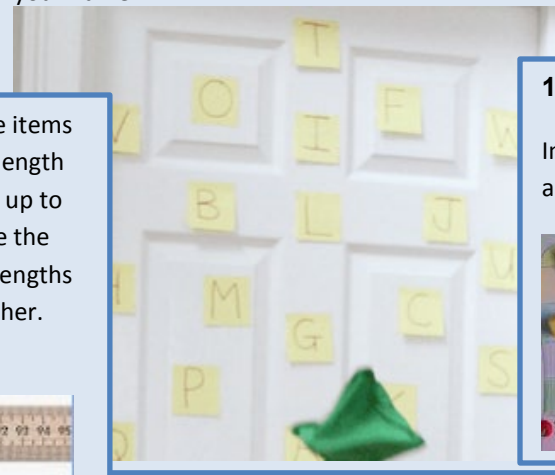
$$20+80+30+70+25+75+33+67+600$$



5. Make a daily timetable for activities you do from waking up until going to bed. Choose how much time you want to spend on each activity.

Before 9:00 AM	Wake up!	Make your bed, eat breakfast, brush teeth, get dressed
9:00-10:00	Outdoor Time	Family walk or outdoor play
10:00-11:00	Academic Time	No Electronics! Reading, homework, study, puzzles, journal
11:00-12:00	Creative Time	Creative play, drawing, LEGO, crafts, music, cooking, baking
12:00-12:30	LUNCH	
12:30-1:00	Home Chores	Clean rooms, put away toys, take out garbage, pet care
1:00-2:30	Quiet Time	Reading, naps, puzzles, yoga
2:30-4:00	Academic Time	Electronics OK! Educational games, online activities, virtual museum tours
4:00-5:00	Outdoor Time	Family walk or outdoor play
5:00-5:30	Dinner time	Family dinner, help with clean-up and dishes
6:00-7:00	Bath time	Bath or shower
		Relaxing before bedtime

6. Write the numbers 1-30 on small squares of paper and attach them, in a random order, to the back of a door. Using a rolled up sock, small soft toy or sponge ball see if you can hit two different numbers. Add the pair of numbers you have hit. Then carry on seeing which the highest total you can make is. Try it with the alphabet too and count how throws it takes you to accurately spell out your name.



7. Line up a variety of fruits and veg, such as oranges, bananas, cucumbers, kiwis, tomatoes, and peppers. Predict the order of the foods from lightest to heaviest. Use scales to test your predictions, then rearrange the foods according to their actual weights.

8. Draw a calculator layout of numbers and operations on pieces of paper and put them on the floor. First hop on one number, then an operation, another number, the equal sign, and finally the answer. For double-digit answers, you can split your last hop so that your left foot lands on the digit in the 10s place and your right foot



lands on the digit in the ones place.

9. Write down three items in the room whose length you predict will add up to one metre. Measure the items, record their lengths and add them together. Repeat.



10.

Invent a new board game for you and your family or carers to play.

