

Maths on Toast Bake-Off Maths Challenge

Are you ready to take on the ultimate maths baking challenge?

Practise measuring, explore spatial reasoning and tackle construction as you challenge your family and friends to see who will be crowned the best Maths on Toast baking champion.



Measurement Challenge

Show off your baking skills by making 8 delicious maths muffins. Remember, an important part of the process is measuring out ingredients - so make sure your measurements are exact!

You may have your own recipe or if you prefer you can follow the one for choc chip muffins below.

What you'll need:

- 100g self-raising flour
- 100g butter (softened)
- 100g caster sugar
- 100g chocolate chips
- 2 large eggs (lightly beaten)
- 1 teaspoon vanilla extract

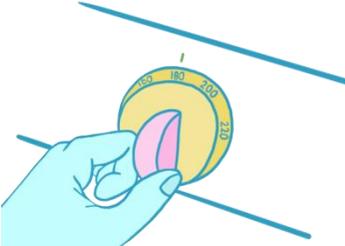
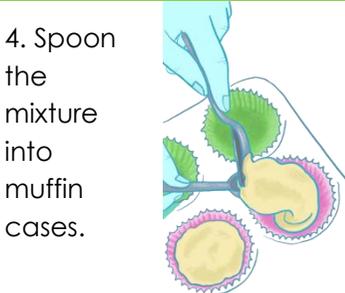


Why's this maths?

Weighing and measuring ingredients will help you develop a better understanding of volume and measurement. Timing and calculation skills can help prevent soggy bottoms and burnt buns!

What to do:

Can you make 8 IDENTICAL muffins?

| | | |
|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>1. Preheat the oven to 180°C</p> |  <p>2. Cream the butter and sugar and gradually beat in the eggs and vanilla extract. Mix until smooth.</p> |  <p>3. Fold in the flour and chocolate chips.</p> |
|  <p>4. Spoon the mixture into muffin cases.</p> |  <p>5. Bake for 20-25 mins.</p> |  <p>6. Carefully remove from oven and let cool on a wire rack.</p> |

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Don't forget to share your creations and comments on Twitter, Facebook or Instagram tagging @mathsonttoast using #positiveaboutmaths



maths on toast
the family maths charity

Every special cake needs a special box!

Have you ever opened or unfolded a box along its edges? The unfolded flat shape is called a net.



3D Challenge

Get hands-on and produce the perfect box template (net) to display one or more of your muffins. Remember to think about how it will look when constructed into a 3D shape (make sure your muffin will fit!). What 3D shape will your net become? Perhaps a cube or a pyramid!

What you'll need:

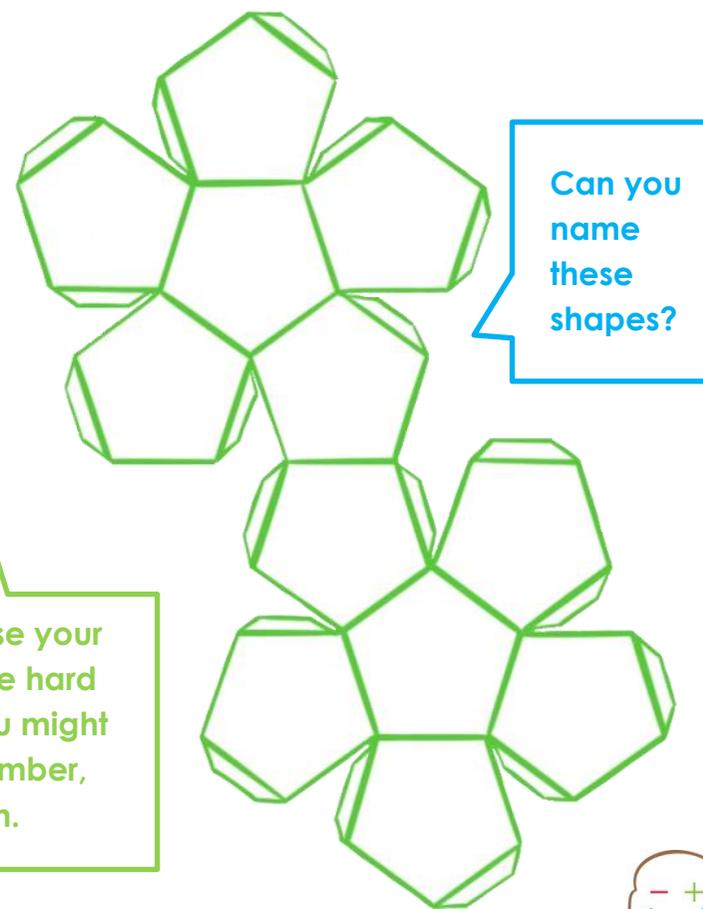
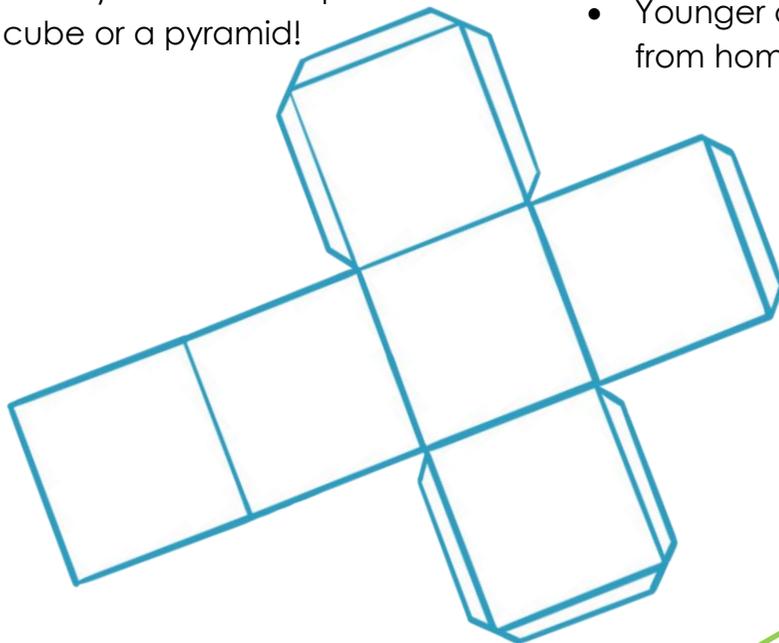
- A piece of paper or card (card works best!)
- A ruler or an object to draw around

Why's this maths?

You'll be accurately measuring and drawing to repeat an identical shape and visualising how your flat piece of paper or card could become a 3D shape.

What to do:

1. Open out some boxes you have at home to see how shapes join together to form a net.
2. Use a ruler to draw your own or use a household object to draw around. Don't forget to add some tabs like the ones below.
 - Younger children may prefer to unfold and rebuild a box from home.



A tricky one! But a great opportunity to practise your perseverance skills. Sometimes challenges are hard and we make mistakes, but don't give up! You might find a new way of doing something and remember, making mistakes is good – that's how we learn.

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A cake box must be fit for purpose so it's time to put your construction skills to the test!



Design Challenge

This is the really creative part, now it's time to construct and decorate your shape net, turning it into a fully functional cake box.

What you'll need:

- Your shape net
- Scissors
- Glue
- Pens, pencils or craft materials

What to do:

1. Carefully cut out your shape net.
2. Decorate
3. Fold the edges and put glue on the tabs. Then bring the sides of your net together to form a 3D shape - use the tabs to stick the edges.
4. Pop your muffin(s) inside!

Why's this maths?

Nets are a practical and visual way to identify properties of shapes, including faces, edges and vertices. You'll be constructing your own 3D shape from a 2D sheet.



Where will you design the opening of your box to be?

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