KIDCODER: LET'S BAKE A CAKE!

DECOMPOSITION

5MIN 15MIN

STAGE 2

AIM OF ACTIVITY

What do we do when we face a big problem? One thing that can help is breaking the problem down into much smaller, easier problems.

WHAT YOU'LL NEED

- Some ingredients/items used in baking a cake – for visualisation!

WHAT YOU'LL GET OUT OF IT

- Understand what it means to use decomposition
- Learn how we use decomposition when baking a cake!

DECOMPOSITION

Decomposition is part of computational thinking and it can be used to break down one big task into smaller, simpler tasks. In the same way, a wall can be broken down into each individual brick. Here we can use decomposition to break down baking a cake into simpler steps!

https://github.com/naomifelix/KidCoder-2.0-Teaching-Computational-Thinking-Concepts-Through-Resources-and-Play

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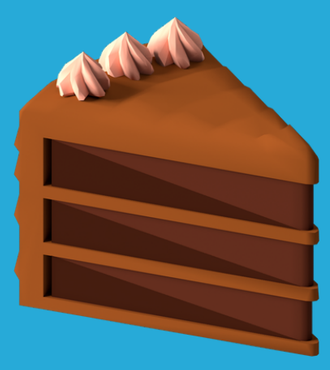
DECOMPOSITION

WHAT TO DO

(1)

The task of 'baking a cake' can be broken down into steps!



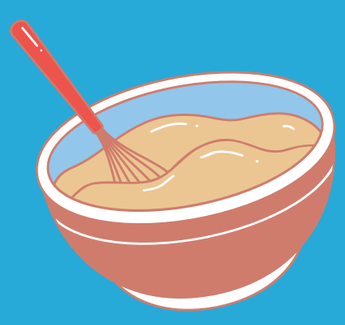
(2)

In small groups of 3 or 4, try and create about 6-8 steps that are needed to bake a cake.

You can use the items to help you!

(3)

Don't worry about getting the steps in order or including measurements! As long as they are simpler than 'bake a cake' they can be included!



(4)

Once you've done this, go through your steps again and see if you can break them down further! Aim for 10-15 steps.

USING IN THE CLASSROOM

In pairs, try and find two Victoria Sponge cake recipes online – one fairly simple, and one very detailed. Which one do you prefer and why? See if you can combine the two recipes to find a 'middle-ground'.

TAKE IT FURTHER

Swap your steps with another group and compare them to your own. What are the similarities and differences? Are there some steps that may not be needed?

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