

KIDCODER: LET'S MAKE A CUP OF TEA!

ALGORITHMS



<5MIN



25MIN

STAGE 2

AIM OF ACTIVITY



Sometimes we can know what to do to solve a problem but not how to do it. When we use computational thinking, we can figure out how to solve a problem step-by-step!

WHAT YOU'LL NEED

- Just yourselves!

WHAT YOU'LL GET OUT OF IT

- Understand what it means to use algorithms
- Learn how to apply algorithms to making a cup of tea!

ALGORITHMS

Algorithms are step-by-step instructions that help us complete a task. It is all about doing things in the right order, like putting your socks on before your shoes when you get ready for school! By thinking about the steps for making a cup of tea, we can create an algorithm!



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WHAT TO DO

(1)

Sometimes we can have more than one algorithm that does the same thing. This can be true when making a cup of tea!



(2)

In small groups of 3 or 4, we are going to create two different algorithms that both produce a nice cup of tea at the end. One half of the group should work on one algorithm and the other half should work on the other algorithm.



(3)

There may be some steps that must be done at a certain point no matter what. For example, where will we pour the hot water if we don't have a mug?

(4)

Compare the two algorithms you created in your group and try to recognise the similarities and differences between the two.

USING IN THE CLASSROOM

In pairs, think about the steps for making a cup of tea. Split your paper down the middle, and, on one side, write the steps that must be at certain points of the algorithm, and on the other side write steps that aren't affected by order.

TAKE IT FURTHER

All together in your group, try and make a third algorithm for a cup of tea!