

# KIDCODER: LET'S MAKE A CUP OF TEA!



## DECOMPOSITION



**5MIN**



**20MIN**

### STAGE 1

#### 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

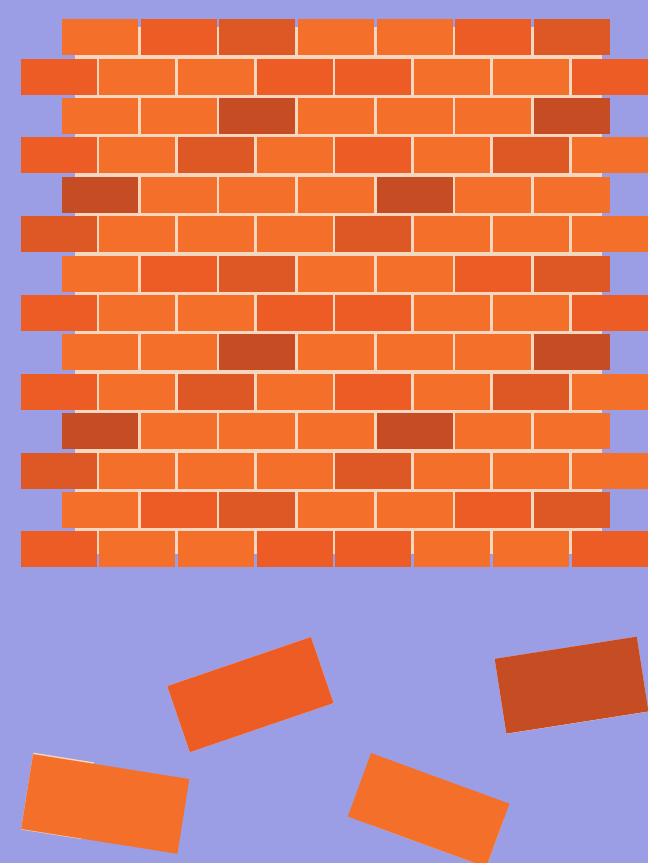
- Some of the items needed to make a cup of tea – a mug, a tea bag, a teaspoon, a saucer, an empty kettle...

#### WHAT YOU'LL GET OUT OF IT

- Understand what it means to use decomposition
- Learn how to use decomposition to make a cup of tea!

## 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 the task of making a cup of tea!



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## DECOMPOSITION



### WHAT TO DO

(1)

We can break down the task of making a cup of tea by thinking about all the elements we need, when we need them and why we need them.



(2)

We definitely need a mug to make a cup of tea. How early into the task do we need the mug? What do we do with the mug?

(3)

What about hot water? Do we need this at the very beginning or a bit later on?



(4)

Try and think of any other elements needed to make a cup of tea, what they are used for and at which step they may be introduced.

### USING IN THE CLASSROOM

In pairs, use the items displayed by your teacher to create the steps for making a cup of tea. Remember, a step may contain more than one item.

### TAKE IT FURTHER

Are there any steps where two or more elements are used together? Try and name all the elements used in a particular step.