

I am a scientist

Part 1: Making Coffee

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**Science talk:
creating a solution**



What happens in the cup when I make coffee?

Science talk

experiment on how to create a solution



Definitions: Important words that will be used in this experiment

Dissolve - When one state of matter is absorbed by another state of matter, it becomes a solution. Like coffee granules being absorbed by the hot water

Solute - is the state of matter that is dissolved in another state of matter, like coffee dissolves in water. This means that coffee is the solute

Solvent - is the substance that the solute is dissolved in. This means that water is the solvent

Solution - A solution is made when the solute dissolves in the solvent. Then we have our cup of coffee

Matter - any physical object that takes up space. Matter comes in 3 states: solid, liquid or gas



Tools needed for this experiment:

- Kettle with water
- Cup with 1 or 2 (or 3) teaspoons of coffee
- A teaspoon to stir
- Some sugar
- An adult to assist



A slice of chocolate cake to enjoy with your cup of coffee, or cupcake?



Step one

Boil the water

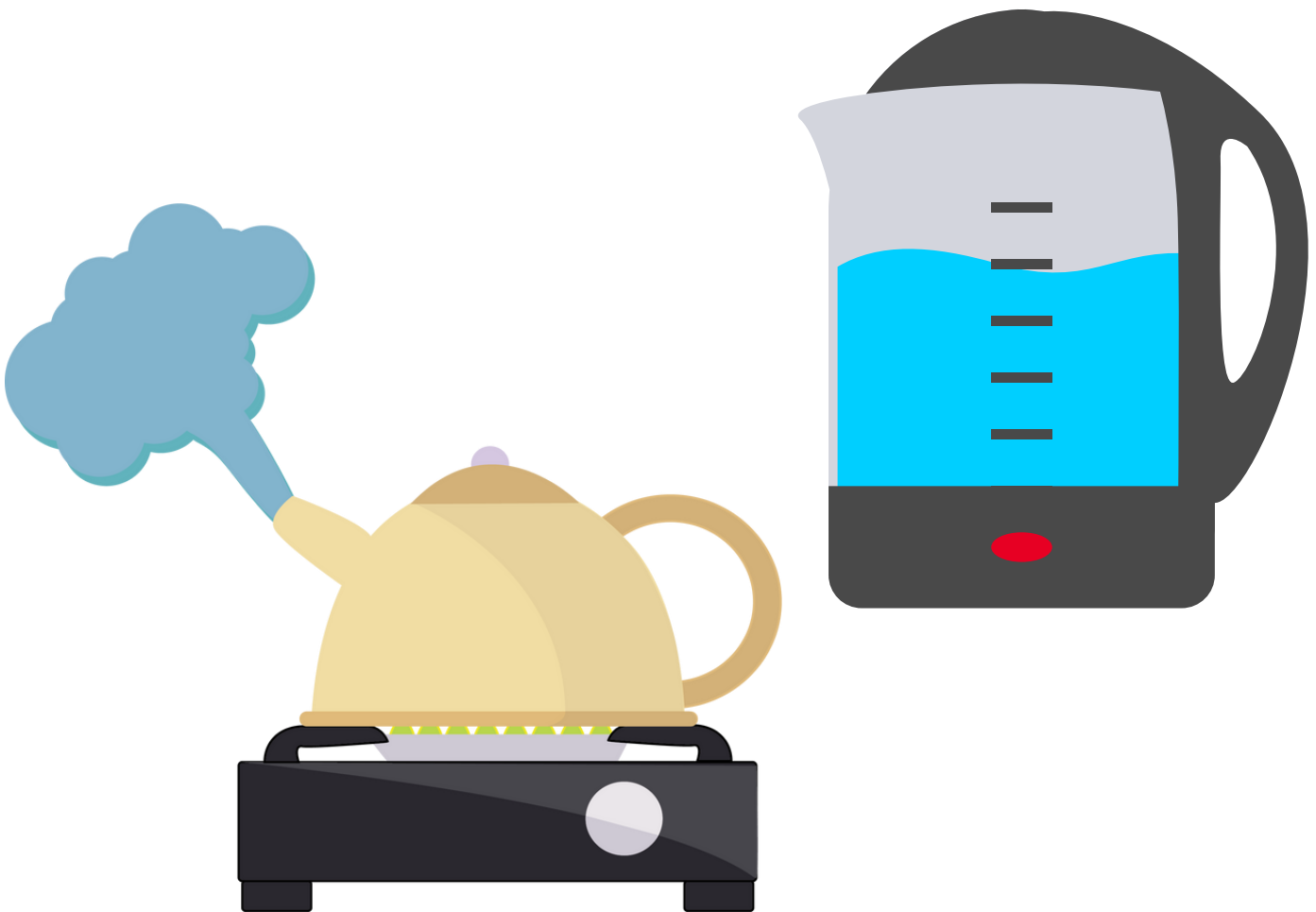
Why?

Science talk:

Preparing the solvent for the experiment

The solute (coffee granules) dissolves easier and quicker when the solvent (water) is hot.

Who wants to drink cold coffee anyway?



Step two

Pour hot water into cup,

Science talk:

*here you are introducing the solvent (hot water)
to the solute (coffee)*

Let an adult help you



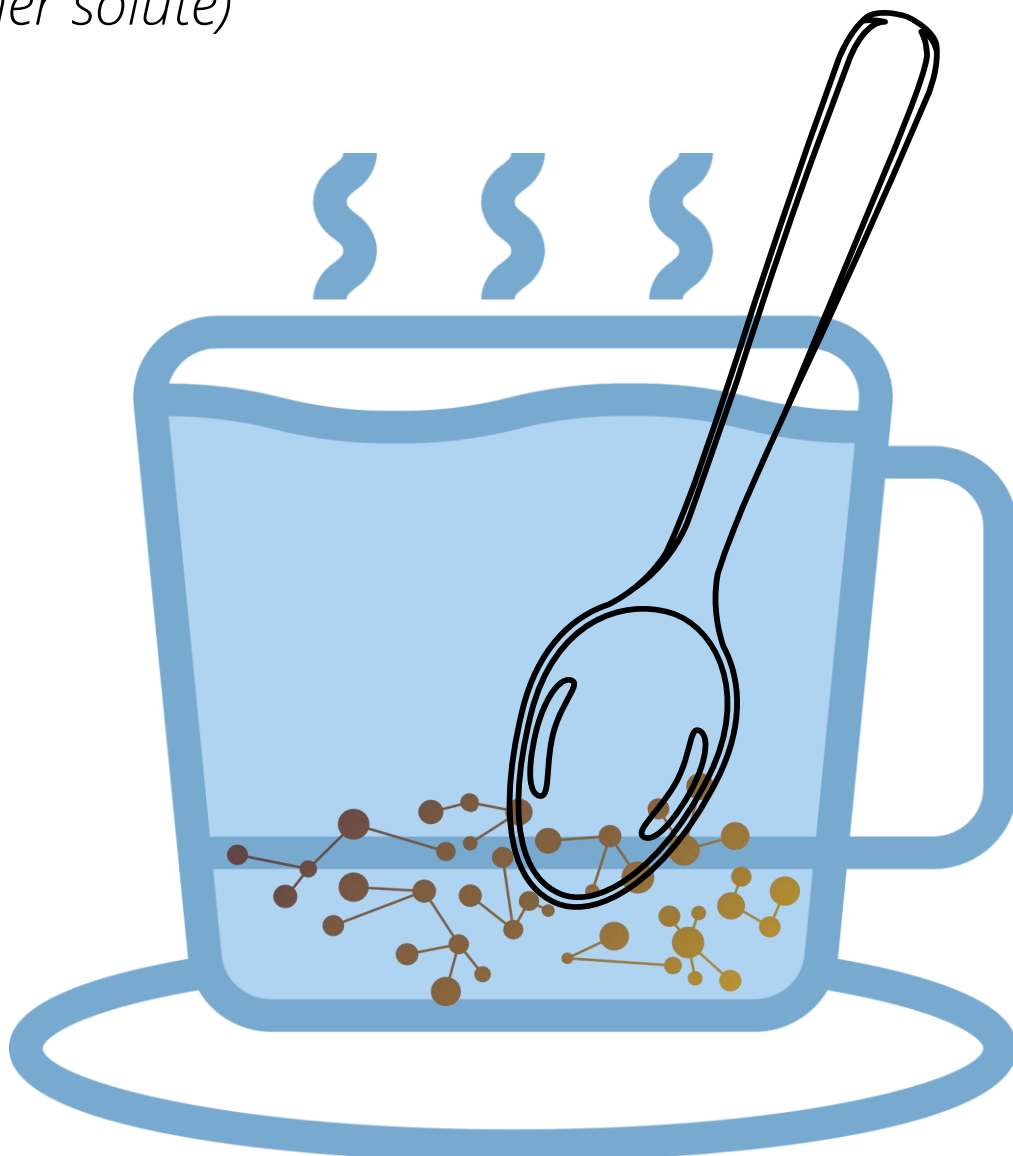
Step three

Put the teaspoon in the cup and stir your water and coffee mixture

Science talk

Stirring the solute (coffee) and solvent (hot water) means that the solute will dissolve quicker into the solvent to create the solution (or your cup of coffee)

This also happens when you stir in your sugar (which is another solute)



You have just completed your first scientific
experiment

You have just demonstrated how we do science every
day in our homes

You could become a world-famous scientist

So, sit back, relax and enjoy your coffee and cake

