

Classroom Activities

10 Big Questions - What is life?*

Living organisms like yeast can transform sugar into CO₂:

You will need:

- Bread mix (with no added sugar)
- Dried yeast
- White sugar
- Water Non-sugar sweetener (e.g. aspartame)

Note: Since yeast is a living organism, make sure that you wash your hands afterwards and don't breathe in the dried yeast.

Method:

Weigh out five lots of 120g of bread flour mix into five bowls. Label each and add 75ml of water to each bowl and knead each into dough.

To bowl:

No.1 add nothing (as the control).

No.2 add half teaspoon of yeast.

No.3 add half teaspoon of yeast and 3 teaspoons of sugar.

No.4 add half teaspoon of yeast and 3 crushed sweetener tablets.

No.5 add 3 teaspoons of sugar and 3 crushed sweetener tablets."

Record the size of the dough ball in each sample every 15 minutes. What did you see? Did it fit with your predictions? Why do you think the samples are different? Can you be sure that the yeast causes the differences?

This classroom activity was suggested by Tatiana P. Soares da Costa – PhD student in the the School of Molecular and Biomedical Science, The University of Adelaide.

* To find out more about the 10 Big Questions, go to:

<http://www.sciences.adelaide.edu.au/learning-teaching/10bq/>

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