

What happens when yeast is mixed with sugar and water?

Name: _____ Date: _____

Aim

To find out what happens when combinations of yeast, sugar and water are mixed.

Equipment

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| • role badges for director, manager and speaker | • labelling pen |
| • each team member's science journal | • 3 x ½ teaspoon rapid rise active dry yeast |
| • 4 small plastic bottles (350–400ml), all the same size | • 3 x ¼ cup sugar |
| • 4 balloons | • 3 x ½ cup warm water (37°C) |
| • 1 funnel | • ½ teaspoon measure |
| • masking tape | • ¼ cup measure |
| | • ½ cup measure |

Activity steps

- Make labels for the four bottles, with your team members' names and the following information:
 - Bottle 1: water + yeast
 - Bottle 2: water + yeast + sugar
 - Bottle 3: water + sugar
 - Bottle 4: yeast + sugar
- Place the funnel in the mouth of each bottle and add the following ingredients:
 - Bottle 1: ½ cup warm water + ½ teaspoon active dry yeast
 - Bottle 2: ½ cup warm water + ½ teaspoon active dry yeast + ¼ cup sugar
 - Bottle 3: ½ cup warm water + ¼ cup sugar
 - Bottle 4: ½ teaspoon active dry yeast + ¼ cup sugar
- After you add the warm water, quickly put the opening of the balloon over the mouth of the bottle. Pull the stem part of the balloon down so that it will not come off easily. If it is loose, stick it down with a piece of masking tape to make it airtight.
- Mix the contents of each bottle gently.
- Observe the bottles carefully. In your science journal, write and draw what you can see. Write a prediction about what you think will happen to each bottle and balloon over the next hour.
- Leave the bottles in a warm place for one hour. After an hour, check the bottles and balloons.
- Record your observations.
- If possible, leave the experiment overnight and record results again in the morning.