

Grade Level: 1 to 2

Abracadabra!

Super Crew member Jessie has the power to change the form of objects and manipulate molecules. Below are seven foods that are often changed into something else before we eat them. Can you find the right match?



1. Water



A. Bread



2. Raw eggs



B. Marmalade



3. Milk



C. Peanut butter



4. Yeast & Wheat



D. Poached egg



5. Peanuts



E. Ice cubes



6. Citrus



F. Yogurt

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Answer Key



1. **F** **Water** turns to **ice cubes** at 32°F or 0°C. This reaction is reversible—ice cubes left at room temperature melt and become water again.



2. **E** A **raw egg** is changed into a **poached egg** after simmering on the stove. This reaction is not reversible—the protein in the egg white is denatured or changed when it cooks, and the liquid part of the egg turns solid permanently.



3. **G** **Milk** is made into **yogurt** by adding live and active bacteria cultures and heating it to 112°F or 45°C. This reaction is not reversible.



4. **A** **Yeast** is used to make **bread**. Yeast is a fungus that helps the bread dough rise. Bread-making is not reversible!



5. **C** (**Peanuts** make **peanut butter**. Peanut butter is made from chopped up peanuts and salt. The “butter” or paste forms because the oils in the peanut butter help the peanuts stick together and become smooth like butter. The butter can’t be reversed to whole peanuts.



6. **B** **Citrus fruits**, like oranges, are used to make **marmalade**, a kind of jelly where the fruit, skin and all, is simmered together with sugar. This reaction isn’t usually reversible.