

Bread Dough Challenge Variable:

Yeast

There are 2 types of dry yeast:

***Active Dry Yeast and
Rapid-Rise Yeast***

Your group will use rapid-rise yeast.



Bread Dough Challenge Variable:

Kneading

Kneading develops gluten by making it stronger and more elastic. This allows the dough to stretch and expand as it rises.

Your group will double the kneading time in your recipe.



Bread Dough Challenge Variable:

Gluten

Gluten is the protein component of flour. Professional bakers add vital wheat gluten to strengthen dough so it retains more carbon dioxide gas causing the dough to rise better.

Your group will add vital wheat gluten to the recipe.

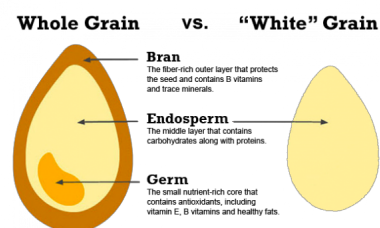


Bread Dough Challenge Variable:

Flour

White flour is made by grinding up only one portion of a wheat kernel, the endosperm. Whole wheat flour is made by grinding up the entire wheat kernel.

Your group will use whole wheat flour.



Kneading

Yeast

Flour

Gluten

Bread Dough Challenge Variable:

Room Temperature

Room temperature impacts the speed that bread dough rises.

Your group will place your dough in a location that is warmer than room temperature.



Bread Dough Challenge Variable:

Water Temperature

Dry yeast is in a dormant state until water is added. This allows yeast to be manufactured, packaged, and stored in our kitchen until we need it.

Your group will use cold water in your recipe.



Bread Dough Challenge Variable:

Control

Your group will make the recipe exactly as stated in your handout. It will provide a frame of reference to compare the other variables.

Bread Dough Challenge Variable:

Gluten Free Flour

Some individuals are sensitive or intolerant to the protein, gluten, which is found in wheat flour. Alternative flours can be used.

Your group will use a non-wheat flour.



**Water
Temperature**

**Room
Temperature**

**Gluten Free
Flour**

Control

Bread Dough Challenge Variable:

Sugar

Sugar serves as a food for yeast.

Your group will manipulate the amount of sugar added to the recipe to see if you can increase the rate the dough rises.



Bread Dough Challenge Variable:

Artificial Sweetener

In an effort to decrease sugar content in food, artificial sweeteners like Splenda can be substituted in some recipes.

Your group will use an artificial sweetener.



Bread Dough Challenge Variable:

Alternative Sweetener

White granulated sugar is the most common source of sugar in a bread recipe. However, brown sugar, honey, and molasses are other forms of sweetener.

Your group will use an alternative sweetener.



Bread Dough Challenge Variable:

Salt

Salt boosts the flavor of food. In bread, it also plays a role to tighten the gluten structure and add strength to the dough so it holds on to the carbon dioxide gas.

Your group will add salt to the recipe.



**Artificial
Sweetener**

Sugar

Salt

**Alternative
Sweetener**