

Art, Design and Technology: Knowledge

Organiser:



Ingredients	Function
Strong plain flour	Has a high gluten content, gluten is a protein when mixed with water it, forms an elastic and stretchy dough. Gluten sets when cooked at high temperatures and forms the framework and shape of the bread.
Salt 	Adds flavour, controls the action yeast, strengthens the gluten
Yeast	Raising agent, producing CO2 gases which makes the bread rise. Correct conditions needed to grow – food, warmth, moisture and time.
Liquid 	Binds ingredients together to help the development of gluten. The liquid should be warm.

Key words	Definitions
Kneading	Flour, salt and fat are mixed with the yeast and water. Flexible dough formed, kneaded to stretch the dough and develop the gluten and form an elastic dough.
Proving/fermentation	The dough is left to rise. This is called proving. The yeast produces carbon dioxide gas, which causes the dough to rise.
Gluten	Protein found in flour. Gives the dough its stretchy characteristics. Think of gluten as the rubber of a balloon: The stronger it is, the more gas it can hold.
Shaping	The gluten should now be thoroughly distributed. The dough is shaped and left to prove again.
Knocking back	To create an evenly textured bread the dough is kneaded to release some of the gas. It is left to rise again.

Faults	Cause
Lack of volume, heavy and closed texture.	Dough is too tight due to insufficient liquid. Too much salt added. Not enough yeast. Dough over fermented, causing the gas pockets to break down. Low gluten content due to incorrect flour used. Insufficient Kneading or proving given.
Dough collapsing when placed into the oven.	Over proving
Lack of crust colour	Dough over fermented. Lack of salt. A hot dough and/or skinning during final proof will certainly cause lack bloom and healthy crust colour. Oven too cool
Uneven texture with holes and crust breaks away.	Too hotter oven. Insufficient proving. Dough left uncovered during proving and surface dried out.



Types of Yeast

- **Fresh Yeast**-also called compressed yeast. Usually purchased in 1 lb. Cakes.
- **Active Dry Yeast**-dry, granular form of yeast. Must be rehydrated in warm water before use.
- **Instant Yeast**-also a dry granular form of yeast, does not have to be dissolved in water before use. Also called rapid rise or quick rise yeast.

Nutrition

Bread is a good source of carbohydrates, protein, B group vitamins and the minerals calcium and iron, Wholemeal flour is also a very good source of NSP—dietary fibre.



