Year 4 – Spring

Designing	Making	Evaluate
Design brief: To design and make a bread. Children need to consider the different textures, smells, appearances and flavours. Design criteria: • Be full of flavour. • Be cooked perfectly, not over baked and not under baked. • Have risen well and be a good colour on the outside. • Have at least one added ingredient. • Be an appealing shape.	Children need to select ingredients, utensils and equipment to make and bake their bread. Children need to use the straight dough cooking technique which is a single-mix process of making bread. The dough is made from all fresh ingredients, and they are all placed together and combined in one kneading or mixing session. Kneading Proofing	Children need to be able to describe what they like and dislike about their own and other people's product. Children need to evaluate their bread against the design brief. Does their bread meet the criteria? If not, what would they do next time? What other savoury ingredient could you add?

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/fermenta-tion	The dough is left to rise. This is called proving . The yeast is pro-duces carbon dioxide gas, which causes the dough to rise.
Gluten	Protein found in flour. Gives the dough its stretchy characteris-tics .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.

Bread is a staple food product eaten all over the world. It is one of the oldest known prepared foods. There is evidence from 30,000 years ago of starch residue on rocks indicating that a flour has been made.
During Neolithic times, farming and agriculture developed rapidly and bread making became an important source of food. Different grains were used and leavening processes were developed to allow bread to rise before and during baking.
Many early breads were unleavened (meaning no yeast or raising agent is present). These are still made in many parts of the world now. The tortilla and roti are staple foods in Central America and South Asia.

Leavening

Leavening is the process of adding gas to a dough before or during baking to produce a bread that is lighter and more easily chewed. Most bread eaten in the west is leavened.

Bread can be leavened by introducing chemicals such as baking powder or buttermilk and baking soda. Self-raising flour has baking powder in it.

Bread can also be leavened with yeast. Yeast are micro-organisms that ferment the carbohydrates in bread creating carbon dioxide.

Bakers follow a process where a dough goes through two resting periods known as proofing. During this process, the bread rises and its shape is created.

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 tem-peratures 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.

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 to cool
Uneven texture with holes and crust breaks away.	Too hotter oven. Insufficient proving. Dough left uncovered during proving and surface dried out.

Knowledge and understanding

Different ways of shaping bread:

The Knot

Round Rolls