

## Edward Peake Church of England Middle School

**Food**

**Topic: Food Preparation and Nutrition**

**Year: 8**

What should I already know?

- How to prepare, combine and shape tuna and chicken.
- How to use the hob for water and dry based methods.
- How to make sauces.
- How to set a mixture.
- How to make, shape and finish a dough.
- How to select and adjust a cooking process.
- How to test for doneness.
- How to carry out a sensory analysis.
- How to store food safely.

What will know by the end of the unit?

- What nutrients are and why we need them.
- How to reduce a sauce.
- How to set a mixture by chilling.
- How to use raising agents.
- How to prepare and combine ingredients a range of ingredients.
- How to carry out a food scientific experiment.
- Why presentation of food is an important skill.

### Vocabulary

Nutrients	A substance that provides nourishment essential for growth and the maintenance of life .
Macronutrients	Provide energy and are needed in large amounts in our diet.
Micronutrients	Include vitamins and minerals and are essential for our health.
Knead	To work and press into a smooth, uniform mixture with your hands.
Prove	To allow the bread dough to rise.
Sustainable	Maintaining a source of something at a steady level.
Enzymic browning	When enzymes in food react with oxygen in the air and cause the food to turn brown.
Hypothesis	A suggestion of what might happen made on the basis of limited evidence as a starting point for further investigation.

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### Nutrients



### Key information

- There are two types of nutrient, macro-nutrients and micronutrients.
- Carbohydrates are a source of energy.
- Protein is essential for growth and repair.
- Fats are a concentrated source of energy.
- Vitamins and minerals are compounds which are necessary for our normal growth and function, which we cannot make within our bodies.

### Science Behind the Methods

#### Gelation

The setting of a liquid due to cooling.

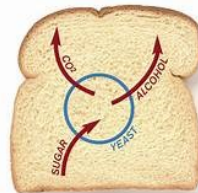


In the cheesecake the setting of the melted butter in the base is gelation.

The setting of the cream cheese filling is also gelation.

#### Yeast Fermentation

Fermentation is the step when the yeast makes carbon dioxide in the bread making process.



The yeast needs warmth, moisture and food to work.

#### Enzymic Browning



When enzymes in food react with oxygen in the air and cause the food to turn brown.

### Investigation tasks

1. Carry out a food scientific experiment looking at the use of different raising agents when making cakes. What effect do they have on the appearance, texture and taste of the cakes?
2. Research different types of bread, what are the differences in their ingredients and the methods to make them? Can you make any?
3. Research into the different nutrients of fruits and vegetables. Can you come up with recipes for a range of healthy smoothies and explain why they are good for your health?
4. Sweet and sour chicken is a dish from China, research into other dishes from different countries and present your findings.