

# Bake It!

Our iCAN mind map

## THE BIG IDEA

We are going to find out about science by making bread. What has bread got to do with science? The processes involved in making bread can teach us how molecules behave in different materials (solids, liquids and gases) and how these materials can be changed.

## Science

As scientists at iCAN we will be investigating:

- How live yeast grows
- How carbon dioxide behaves
- Which solids dissolve in water
- Water vapour and evaporation
- What happens when foods are heated
- The properties of water
- Solids, liquids and gases

### Learning Goals

- 3.1 Know that the study of science is concerned with investigating and understanding the animate and inanimate world around us
- 3.2 Be able to conduct scientific investigations
  - Posing scientific questions
  - Choosing an appropriate way to investigate a scientific issue
  - Using our scientific knowledge and understanding to predict the outcome
  - Relating the outcome to our original prediction
  - Making systematic and accurate measurements from our observations
  - Drawing conclusions based on the evidence
  - Explaining and justifying our predictions, investigations, findings and conclusions
  - Recording and communicating our findings accurately using the most appropriate medium and the appropriate scientific vocabulary and conventions
  - Repeating investigations, observations and measurements to check their accuracy and validity
  - Identifying patterns in the results
  - Using scientific language to explain any differences found in the results of investigations
  - Suggesting ways in which our investigations and working methods could be improved
  - Relating our own investigations to wider scientific ideas
- 3.3 Be able to gather evidence from a variety of sources
- 3.4 Be able to discriminate between evidence and opinion
- 3.5 Understand the importance of using evidence to test scientific ideas
- 3.6 Understand some of the effects of what we learn on people's lives
- 3.31 Know the distinctive properties of different materials
- 3.32 Know about the principles of materials acting as thermal insulators
- 3.33 Know what happens when materials are heated and cooled
- 3.34 Know about the principles of condensation and evaporation
- 3.35 Know about differences between metals and other materials
- 3.36 Know that matter is made up of particles
- 3.37 Know about the different arrangements of particles in solids, liquids and gases
- 3.39 Be able to group and classify materials according to their properties
- 3.40 Be able to identify changes that are reversible or irreversible
- 3.41 Be able to separate simple mixtures
- 3.42 Be able to recover dissolved solids through evaporation

## Technology

As designers at iCAN we will be learning:  
• How to design and make a new brand of food

### Learning Goals

- 3.4 Be able to respond to identified needs, wants and opportunities with informed designs and products
- 3.5 Be able to gather and use information to suggest solutions to problems
- 3.6 Be able to devise and use step-by-step plans
- 3.7 Be able to consider the needs of users when designing and making
- 3.8 Be able to select the most appropriate available tools and materials for a task
- 3.9 Be able to work with a variety of tools and materials with some accuracy
- 3.10 Be able to test and evaluate our own work and improve on it

## International

As international citizens at iCAN we will be learning:  
• Why bread has importance for people all over the world

### Learning Goals

- 3.2 Know about the key features related to the lives of people in Cambodia and/ or, where appropriate, other countries in which we have lived
- 3.4 Know about similarities and differences between the lives of people in different countries
- 3.5 Be able to explain how the lives of people in one country or group are affected by the activities of other countries or groups
- 3.6 Be able to identify ways in which people work together for mutual benefit
- 3.7 Understand that there is value both in the similarities and differences between different countries