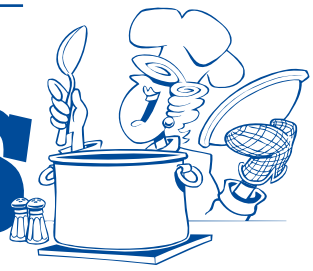
activities



Storing Bread and Sandwiches

Store it!

Aim

To find out the best way to store bread.

Equipment

6 loaves of fresh bread or slices (make sure they are the same brand)

A cardboard box

Plastic cling wrap

A plastic bag

A plastic container with a seal top lid

A biscuit tin or aluminium container

A paper bag

Twisty ties to close the bags

Method

Unwrap each loaf from its bread bag and place the whole loaf or a couple of slices in each container or wrap. Leave all samples in the same environment with the same temperature so that a valid comparison can be made. Check your samples daily.
Record your observations under the following headings:

Date	Container	Observation	Would you eat it?

At least one week of observations is needed.

Results

Report your fair test results to your class. Make sure you report when you first noticed the bread changing, and how it changed. In your report describe what happened to the slice of bread. Did it go hard, soggy, mouldy, and/or shrivel up? Under the heading 'Would you eat it?' say why or why not. You may have to do some research to help you decide. Tell your class which container you think is the best to store bread and for how long?

Conclusion

Explain why particular packages are the best/worst. Are the packages bread manufacturers use the most suitable for storage? Give reasons (such as transportation, attractiveness) that explain why manufacturers use/do not use particular packages.

There is enough grain to feed everyone in the world. How many ways are used to increase grain production? (Hint: fertilisers, pesticides, irrigation, breeding better strains, larger fields and bulk storage). Investigate the positive and negative effects of each of these on people and the environment.

How many methods of preservation and storage can you think of for wheat, flour and bread? Research one method such as refrigeration and market it to a group of people using charts, overhead transparencies, video, or a computer slide show.

Mouldy bread

Aim

To see how oxygen works on food.

Materials

Pencil

Paper

A slice of white and a slice of wholemeal bread.

Water

Method

Dampen each slice with droplets of water. Leave the breads on a plate uncovered for at least two weeks on a Science Table. Each day record your observations under the following headings...

Date	Wholemeal Bread	White Bread

On another piece of paper draw all the changes you see.

Results

Make a note of the changes you observed and the days on which major changes occurred.

Conclusion

Think about what you could do to slow down or speed up these changes.
What could you do for your next experiment?

News Flash! News Flash! A new "Modified Atmospheric Packaging" has just been developed. This packaging uses a gas flush method that keeps the bread fresh for up to three weeks. Your job is to market this new invention with colourful pictures and catchy phrases and/or tunes.

Refreshing Bread

Bread that is several days old can be refreshed.

Put a loaf of bread in a moderate oven, or in a microwave on Defrost, and heat gently. If necessary brush the outside of the bread with cold water to soften it. When refreshing bread and rolls in the oven, wrap in brown paper or aluminium foil. Cover with a paper towel when using a microwave. To refresh crusty breads reheat in an oven unwrapped.

Design an experiment to find out how long bread can be kept before it cannot be refreshed. To do this you need to think about how many loaves are needed, where you will keep them, and for how long? How will you measure the freshness of the bread?

In the conclusion, comment on the advantages and disadvantages of refreshing old bread. Think of situations where it could be necessary to refresh bread.