

Discover the Process of Milling



1. Start by feeling the grains of wheat, discuss what they look, smell and feel like.



Wheat growing in a field



Here is an ear of wheat, when harvested the wheat grains are separated from the husks that hold them in place.

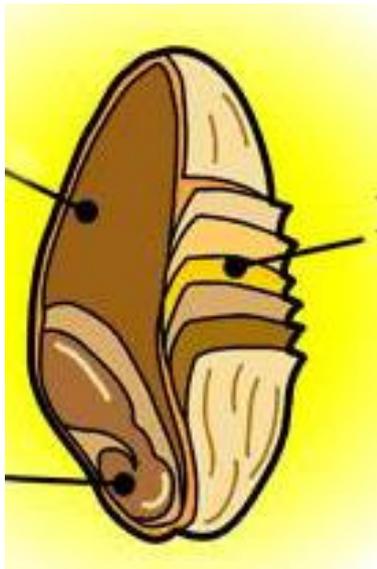


Grains of wheat

2. Take a look at the information PowerPoint looking at the process the grains take when being milled into flour (slides 1-13).

Cleaning – Conditioning – Gristing – Ground in rollers (first break) – Sieving – Reduction rollers

3. Can you label the wheat grain below showing the different parts that are broken up in the milling process?



- **Wheat germ**
- **Endosperm** (the white flour)
- **Bran layers**

4. Now it is time to have a go at milling yourself - on a small scale. Place some wheat grains into an empty pepper mill. Take turns at grinding the wheat onto a piece of kitchen roll.

5. Have a look at the ground grains on your hand - Can you spot some of the parts? You should be able to see the endosperm, the white flour part. Here you have become your very own mini millers and replicated the 'first break'.
6. Can you name some food items that use flour in its ingredients? Extra points go to items that are breakfast products (slide 14)

From Field to Loaf

Imagine a metre square in front of you. If you have the equipment measure out with metre rulers or canes.

Now imagine that metre square is a very small section of a farmer's field:

- Within that metre square of field - 250 wheat seeds would be planted here to grow into wheat crops.
- Which would produce - 1 kg of wheat
- That wheat would then be harvested and processed at the mill to turn it into flour.
- In the 1 metre square the 1kg of wheat will make 800 grams of flour
- So, in that 1 metre square from the flour produced it will make 1 large loaf of bread or 25 pancakes.

Discuss as a group how many loaves you might use in a week in your family household.

Recognise that 1 loaf for 1 family per week is harvested from that 1 metre square (some may use more).

Think about all the millions of people in the UK and how many metre squares are needed to feed the nation – and that's just bread!

It goes to show how important our farmers are!

Imagine your playground is a farmer's field (find out how many metres squared your playground is), then think about how many loafs could be made from the school's playground – is it enough to feed a loaf of bread to every student? How about how many pancakes could be made from your playground area?

