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Dig into
Ancient Ireland

What did people eat and how did they get their food?

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The change to a farming lifestyle

The Neolithic period saw one of the most significant changes in human history - the adoption of **farming**. Instead of hunting animals, Neolithic people **bred** them and **reared** them, and instead of gathering plants from the landscape, they **grew** them and **harvested** them. This meant that people no longer had to move around the landscape in search of food, but instead they could settle in the one location. These developments began in the Near East about 12,000 years ago, gradually spread across Europe, and reached Ireland around 6,000 years ago (**4,000 BC**). The change to a farming lifestyle meant that houses became larger and more permanent, people began to express their beliefs and sense of place by building megalithic tombs.

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Cultivation

In order to farm the land, they chopped down trees and **opened up the landscape**. They then planted their crops and built farms. Sometimes these farms were quite small, producing enough food for a small community, but at other times they could be extensive. At the Céide Fields, Co. Mayo, the discovery of large field systems divided by stone walls suggests that they were farmed by a **large, organised society**. Marking out fields helps to organise the land, ensures that livestock don't eat or trample crops, and also allows **ownership** to be established over certain fields.

Types of plants

Compared to the range of crops that farmers grow now, the choice was more restricted during the Neolithic. The main plants grown were **wheat**, **barley**, **oats** and **rye**. These crops could be ground down into flour, which could be used to make bread and porridge. The types of crops used were the product of evolution over time, caused by the selective breeding of plants which had larger seeds or tasted better.

Collections in focus

Stone saddle-querns (so called because of their shape) were used to grind grain into flour. This allowed Neolithic communities to bake bread, which was filling and easily produced. These grinding tools had two elements that were used together – the rubbing stone and the quern itself.

Saddle quern. The seeds were placed on the bottom stone (the saddle) and then ground with a rubbing stone.

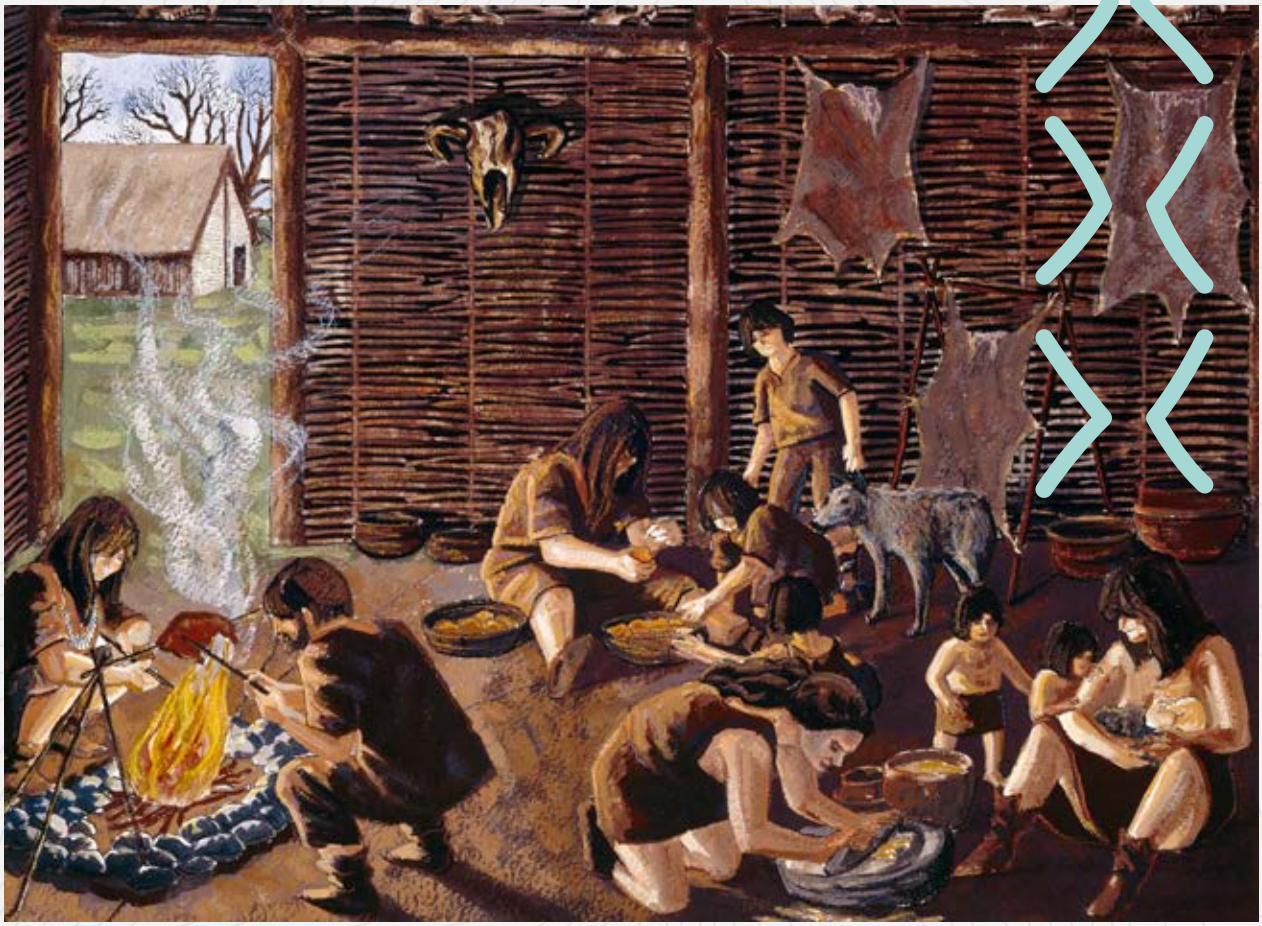
Domestication: Types of animals

Wild species were gradually domesticated into breeds which could be farmed, a process which resulted in animals with **traits which humans desired**. For example, larger size, reduced aggression, increased reproduction rate. **Wild boar** were domesticated into **pigs**; **aurochs** (wild cattle) were domesticated into **cows**; and **mouflon** (wild sheep) became **domesticated sheep**. The Neolithic domesticated species would have looked more like the wild species than our modern domesticated animals.

Aurochs (left) were the wild ancestor to the domestic cow.
They were larger and had much larger horns.

Mouflon, wild sheep (left), were the wild ancestor to the domestic sheep.
Their wool was not as thick and they had large horns.

Wild boar (left), were the wild ancestor to the domestic pig.
They had less fat, had large tusks, and also had a tough, wiry coat.



Advantages and disadvantages of the Neolithic lifestyle

There were a number of advantages to a Neolithic lifestyle. The most obvious is that crops and animals became **more readily available** – instead of hunting and gathering across the landscape, food sources were located at the settlement (although a lot of work went into growing and rearing plants and animals). Because this involved multiple groups coming together, **larger communities** were formed.

Eventually this way of life would lead to the development of villages, towns, cities and civilisations. The large amounts of food harvested from the fields had to be stored, to ensure that it did not rot. The stockpiling of this **surplus** was instrumental in the permanent settlement of Neolithic places. As well as making animals more readily available, domestic agriculture also allowed the use of other resources, such as **milk**, **wool**, and **traction** (the use of animals to pull ploughs). These '**secondary products**' were not previously available to hunter-gatherers, and allowed new types of foods to be eaten, new textiles developed, and improved the efficiency of farming.

Although the transition to a settled agricultural lifestyle led to a stable food supply, standards of living did not improve hegely. Firstly, the diets of Neolithic farmers were **not very diverse** compared to hunter-gatherers. This resulted in **poor nutrition**, with a reduced quantity of vitamins, fats and proteins. **Life expectancies and stature decreased** – the Neolithic Revolution actually reduced height in men and women by 5 inches, and it did not go back to the pre-Neolithic levels until the 20th Century. The reliance on only a few crop varieties also put farmers at **risk of famine** when crops failed. The increased numbers of people all living in one place alongside animals led to a spread in **diseases** such as smallpox and measles.

Make your own flour

The change from hunting and gathering food in the Mesolithic to farming in the Neolithic had huge benefits for people. It also had disadvantages in that there was less free time as people were committed to tending crops and animals and the processing of that food. Today we only have a little understanding of the effort that goes into getting everyday food from farm to fork!

Grind oats into flour

- Using a pestle and mortar to represent a **saddle quern and 'rubber'** - the tool used to break up the grain, grind a bag of rough porridge oats into flour.
- Each pupil takes the same volume eg half a yoghurt pot full of oats from the bag. They carefully pour this into the mortar and carefully crush the oat flakes or gains into powder.
- Other pupils can time and record how long each person takes to make flour with their sample.
- Collect all the flour and weigh it.
- Add up the total number of minutes it took the class to process the bag of porridge. Get the pupils to find and study a recipe for making a loaf of bread... how much flour is required?
- Look at the class results and discuss the time and effort used and the return – how many loaves of bread. In the Neolithic this process would have had to be carried out on a daily basis.

Further discussion

- What parts of your body are you using and how could that effect your body over time?
- Who from the family group would have this task and why?