



## Video/English/Subject Lesson Plan and Guide

Turn our videos into exciting and informative ENGLISH as well as subject experiences using our lesson plan below.

### Starting a new farming year

Where does the video go when it's not on the home screen? New and recent videos appear on the home screen. But then they always go to and stay in the subject areas. So this one lives in Tudors under History. So it is always accessible when you want it, provided you have a membership.

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# Starting a new farming year: Teacher guide

This Lesson Plan and Guide matches the video Ploughing (and in search under farm).

As most children live in towns and cities, they may not be aware of the farming year. But it is, of course, vital to the wellbeing and survival of everyone on the planet.

There is just as much change in farming as in the rest of the world. But it goes on unnoticed by most people.

One of the things that has changed the most is the time of harvest and replanting. Harvesting used to be in September, but changes in farming systems and improvements to seeds have brought forward the harvest of barley in July and wheat in early August.

This means that the completion of the harvest is ever farther from the traditional time of the harvest festival.

Late August is now the time to prepare the soil for the next crop. This vital step has also seen many changes, from traditional ploughing to minimum tilling. This video shows traditional ploughing. Min-till is available on a separate video.

This video can be used (with our creative topic books) to discuss these curriculum topics:

- what is the soil?
- as a way of introducing science: helping plants grow well
- as a way of talking about soil organisms in minibeasts
- as a way of talking about variation and plant breeding and selection
- as a way of thinking about food supplies
- as a way of showing how machines have reduced the amount of people working on the land from when it was 90% to modern times when it is 2%
- As a way of thinking about how simple machines work (the plough is a lever)

- as a way of talking about land use and the environment (the farm where these videos were shot allocates 10% of the total farm to growing seeds for wildlife, keeping thick hedgerows for habitats, keeping patches of forest and more).

1. Play the video right through. This is designed with gaps in the voiceover to give room for discussion. It is extremely important that you help students to look for detail. The questions will help with that, but using a video as a primary source needs a practised eye.

Tell students that on a second run through they will need to find some facts and write them down. That is, familiarity with information will allow you to get more from it. Students should always see the point of reading, listening or watching something containing information more than once. That is good research technique. They may very well use that skill in the jobs in later life.

2. Give out the worksheet below. Tell students they have to use the video as a primary source in order to answer the questions. The questions are designed to extract facts, summarise and finally to provide a challenge for discussion and development. Keep them all in, or select as you feel appropriate.

Keep in mind that this is also a good opportunity to get students to research background knowledge.

Here are places on our website they can do that

- a. Specific: Farming search article.
- b. General: Environment (under geography); Food chains and food

At the end of the questions, students should have understood

1. That there is a farming year tied to seasons
2. That we need to grow food to live
3. That technology (and plant breeding) has transformed farming and made it more productive
4. That farming has seen a revolution in numbers employed in the land
5. That farming is a very capital intensive, complex, and above all, interesting and important occupation.

3. If you wish, you can give out all or part of the supplied text and use it for summarising, and your own GPS questions. It is at the end of this guide.



## How do we start a farming year?

1. What does the word plough mean?
2. Using the top picture, describe how plough used to be done everywhere in the world.
3. How many differences can you see between the top and bottom pictures
4. What do you think the boy is doing in the top picture?
5. From the video, say why more steps are needed after ploughing?
6. Why do you think the tractor has such big tyres with deep tread?
7. How does the farmer make sure the field is ploughed evenly?
8. Why is there a rush to plant new crops straight after the harvest?
9. What three things does a good tilth do?
10. What are the cut remains of a field of wheat called (Hint: s.....)?
11. Why are last-season's old dead stalks and roots buried in the soil?
12. Is 'till' a verb or a noun? Is tilth a verb or a noun? What kind of a word is 'tilling'? What do all of these words have in common?
13. Write a postcard to a friend telling of what it was like to rise on a modern tractor.

Teachers: here are some generic gps questions you could add yourself by copying this text and adding appropriate words where there is an under-score:

14. Find and copy an example of a \_\_\_\_\_ from the video. (Noun, verb, fronted adverbial, adjective, conjunction)

15. Why do the words \_\_\_\_\_ have capital letters?

16. Write down a sentence from the text that contains punctuation. What is this punctuation used for?

17. The word \_\_\_\_\_ is a compound word. Write down the two root words it is made from.

18. Make a list of synonyms for the word \_\_\_\_\_

19. Write down any word that has a prefix in the text. Then think of two other words that have the same prefix.

20. Choose any word from the text and add a suffix.

21. Find a sentence that contains a subordinate clause. Write out the sentence and underline the clause.

22. Write down three words that come from the same word family as \_\_\_\_\_

23. Write the word \_\_\_\_\_ as a noun.

24. Write down all the compound words that have the word \_\_\_\_\_ in them that you can think of (ex: way)

25. Write down three adjectives from the text. Describe what each of them means.

26. Are there any modal verbs in the text (verbs that help to modify other verbs).

Text to read and work from

## Ploughing

It is the end of the summer, and the crop has been harvested. But farmers cannot relax at this time of the year for there has to be a rush to get the land ready for new crops to begin growing before winter sets in. That will give them a good start for the following spring.

But planting seed can only be done after the soil has been broken down into small clumps. That is the job of the ploughing you see here.

The fine clumps of soil that seeds will grow in are called 'tilth'. Soil with good tilth has large spaces that allow air and water in. They also allow surplus water to drain through the soil. Roots only grow where the soil can get air and moisture yet drain surplus water.

We are on a tractor going across a field pulling plough.

You can see the cut remains - called stubble - of a field of wheat here. Under the ground there will also be crop roots. They will be useful to break down and make humus - something next year's plants will need.

The job of the plough is to break up the soil, turn in the old plant material and give just the right conditions for seeds to grow.

To plough quickly you need a powerful tractor and a large plough set. How many people would it take to do this job by hand using spades, do you think?

This is a modern plough. The leading edge digs into the ground. The tines turn the soil over. There are five plough sets on this rig.

To plough easily, farmers choose a time when the soil is not too wet.

Ploughed soil like this is too rough for seeds to be planted directly. So this land will have to be gone over by a giant rake called a cultivator.

Ploughing and cultivating will be followed as soon as possible by planting seed.

In this way, the soil is left bare for only a short time.

Soil contains humus, which is a source of carbon. If left exposed for too long it will turn into carbon dioxide gas and be lost to the soil.

Good farming keeps the carbon locked in the soil and helps to save the planet.