

KS1 Y1 Plant Science

Lesson Plan 8, April. Outdoors.

Beech Trees. Bark.



Objective: 1. LEARN TO IDENTIFY BEECH TREES 20 mins at story time
2. RECORD OBSERVATIONS OF BARK (& other winter tree-ID clues) 45 mins;
Revision and prep + 20 mins

You will need: 1. A safe place where there are at least ¼ the number of trees as pupils; preferably with trees pupils can identify: oak, silver birch, holly, larch, ash and/or beech. 2. Wax crayons, copies of '[Lesson Plan 8 Outdoors Worksheets](#)' page 1 (page 2), clip boards for ¼ the number of pupils in the class. 3. Be ready to assign pupils into teams of four; have a way to share tasks within teams. 4. Hello Tree book Bella Beech.



Optional extra, record all Winter Tree-ID clues, given in brackets.

For an indoor-only option: See [Hello Trees Lesson Plan 8, April, Indoors.](#)

REVISION

REVISE 6 CLUES TO TREE IDENTITY;

Remember: ways to identify a tree: **leaf, flower, fruit; bud, branching and bark.**

Not so much to see in **Winter**. **Elicit:** Only **branches, bark and bud.**

Remember: we looked at leaves and fruits in **Autumn**. Expect flowers in **Spring**.

ASH FLOWERS OUT NOW;

Ash trees think it is **Spring!** Their flowers are beginning to come out.

Remember: 2 different ash trees, one with pollen flowers and one with seed-making flowers.

Share ash tree flower photos in Arthur and Annie Ash.

Suggest pupils look out for ash flowers when they are out and about.

Say, 'Ash flowers are very early. **Spring** is only just beginning.'



English
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LESSON

BARK NEXT.

There is still one more **Winter** clue to think about: done **branching** and **bud**, now **bark.**'

WHAT IS BARK?

Elicit bark is the covering around a tree trunk.

Elicit descriptions of bark: tough, thick, hard, rough, grey, brown – or hairy/fibrous.

IN WHAT WAY IS BARK AN ADVANTAGE TO THE TREE?

Ask: 'How do you think it helps the tree to have a thick rough covering?'

Elicit: protection from animals, fungi, insects, rot, rain, heat, frost, fire, impact (bumps).

Think of similes: Skin? Thick jacket? Duvet? Wall? All of these? (maybe use [Bark vs Skin](#))

PREDICT BARK DEVELOPMENT

Explain that a tree trunk gets wider and wider each year. As the trunk expands, the outer layer of the bark gets tight and splits, cracks or flakes.

Ask, 'Do you think bark on an old tree will be the same as on a young tree?'

Elicit: deeper cracks, more flakes, thicker ridges.

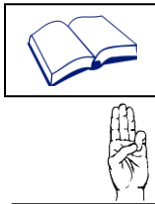
Ask, 'Do you think the bark will be the same at the bottom of the tree as further up?'

Elicit: nearer the base there will be deeper cracks, more flakes, thicker ridges.

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HOW WE KNOW A TREE IS A BEECH TREE.

- **Now or at story time**, explain: you will read a story about a beech tree.
- **Listen up** for 6 clues to the tree's identity: **leaf, flower, fruit; branching, buds, bark.**
- While reading, emphasise: **buds, branches, bark; leaves, flower, fruit.**
- As you read, clarify: holly and ash trees have pollen making flowers and fruit-making flowers on separate trees. Beech trees have both kinds of flower on the same tree.
- Elicit: alternative words to 'grey' to describe the bark colour;
- Elicit: words to describe the texture of beech bark: 'toast'?

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BARK RUBBING (+RECORDING WINTER TREE-ID CLUES)

Method
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WHAT WE ARE GOING TO DO: BARK RUBBING (and RECORDING TREE-ID CLUES)

Say, 'We are going to do bark rubbing to **observe** and **record** the bark on different trees.'

'We put a piece of paper over the bark and rub a wax crayon over the paper so that the pattern of the bark appears on the paper. 1. We must hold the paper very still.

'2. Don't try to draw into the cracks: no colour will show where there are cracks.

'3. Try removing the paper around the crayon and holding the crayon sideways to rub.

'4. Try rubbing with one colour crayon and then with another colour over the first.'

Ask what else we could **observe** about the trees while we are outdoors in **Winter**.

Elicit: Look for buds and branching. We might be able to identify the tree.

Say, 'We shall be **'Looking more closely at the natural ... world around us'**.'

SET UP TEAMS, ALLOCATE TASKS

Say, 'We shall work in teams of 4: Pupil A will pass paper and crayons, Pupil B will hold the paper absolutely still across the bark, Pupil C will rub a crayon over the paper, Pupil D will **write on the work sheet(s)**. Then change jobs so everyone gets a turn at each task.'

Assign teams and sequence of tasks. Distribute worksheets and clip boards.

BARK RUBBING; OBSERVING and RECORDING BARK (+ buds and branching)

Teams do bark rubbing and **fill in worksheet(s)** (include p3).

PLENARY

Let each group **tell the class** what they did, what they **observed** and what they **recorded**.

Say, **'We have been talking about what we have found out and communicating our ideas'**



REMINDE pupils: clues that identify beech trees: **bud**: brown, spiky like a beak, one side then the other on a zigzag twig; **branching**: overall bell shape; **bark**: texture like toast; **leaf**: egg with point, shiny & hairy at first; **flower**: pollen-bearing fluffy balls, and seed-making hairy ones on a stalk; **fruit**: pair of 3-sided, smooth, brown nuts in a spiky case.

PLENARY 1. PUPILS KNOW THE 6 CLUES TO A BEECH TREE'S IDENTITY.

2. PUPILS HAVE OBSERVED and RECORDED TREE BARK (and Winter Tree-ID clues).

Follow-up lessons: Choose bark rubbings and words to describe tree bark to add to the **Plant Science Diary**. Say, 'We **record our observations**'.