

# KS1 Y1 Plant Science

## Lesson Plan 8, April. Indoors.

### Beech Trees. Bark.



**Objective: 1. OBSERVE and RECORD TREE BARK (from photos) 45 mins; 2. LEARN TO IDENTIFY BEECH TREES 20 mins at story time** (Revision & preparation +20mins)  
**For an outdoor option:** See [Hello Trees Lesson Plan 8, April, Outdoors](#).

**You will need:** 1. Ash tree flowers, male and female (or Arthur and Annie Ash photos);  
2. As many Hello Trees books as possible or other photos of tree bark.  
3. '[Lesson Plan 8 Indoors Worksheets](#)' for ½ the number of pupils in the class.



**Before the lesson:** Ask pupils to look, while they are out and about, at the bark of trees, and at ash trees to see if anything is happening to the buds.

#### REVISION + INTRODUCTION TO BARK

##### 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 appear from within the buds.

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

**Share** any real **ash tree flowers** or photos of them in Arthur and Annie Ash.

**Say,** 'Ash flowers are very early. It is still **Winter**.'

##### BARK NEXT.

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

##### WHAT IS BARK?

**Elicit:** bark is the thick covering around the trunk and big branches of a tree.

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

##### 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:** Bark is like: Skin? Thick jacket? Duvet? Wall? All of these?

##### PREDICT BARK DEVELOPMENT

Explain that a tree trunk grows wider and wider each year (as new vessels/tubes form to carry water up from the roots, and others to carry sap down from the leaves).

**Put your hands as if around a tree trunk** and move them apart as if the trunk is expanding.

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 on older trees.

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

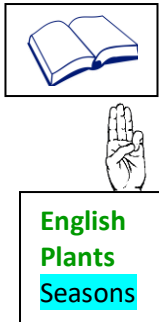
**Elicit:** deeper cracks, more flakes, thicker ridges nearer the base of the trees.



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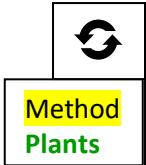
## Lesson Plan 8, April. Indoors.

### Beech Trees. Bark.



#### 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'?



**Ask** **HOW WE KNOW A TREE IS A BEECH TREE.** Say 'There are 6 clues. Let's count them.' Elicit: **bud, bark, branching; leaf, flower, fruit.** Elicit: **bud**: brown; spiky like a kingfisher beak; visible scales. On one side of the twig then the other. **branching**: spiking up and out; overall bell-shape; **bark**: like toast or sandpaper; **leaf**: egg-shaped, pointed end, shiny and hairy in spring; **flower**: pink or yellow dangling fluffy balls, and hairy green ones on a stiff stalk; **fruit**: Two 3-sided smooth brown nuts in a spiky case.



Ask pupils to stand and make the **OUTLINE OF A BEECH TREE** (as the dormouse)  
Ask pupils to outline the **SHAPE OF A BEECH LEAF** on their hand.

### LESSON



#### SET UP PAIRS, AND RECORD OBSERVATIONS ABOUT BARK

Explain: We are going to look at photos of bark on different trees. We shall work in pairs.  
**Using Hello Trees books**: A book and a worksheet for each pair. Taking turns, find a bark photo and read what it says, circle the words on the work sheet that describe the bark. Both think of other words that describe bark. Take turns to write them on the work sheet.  
**Using other photos of bark**: A photo and worksheet for each pair. Work together to think of words that describe the bark. If the words are on the worksheet, circle the words. If not, take turns to write the new words on the worksheet.  
**Both**: 'When you have finished, swap books (or photos) with another team.'



Assign pairs. Distribute books (or other photos of bark) and worksheets.  
 Look at photos of bark and record observations on work sheets.

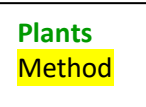


#### TALK ABOUT WHAT PUPILS HAVE FOUND OUT, AND COMMUNICATE THEIR IDEAS

Each pair tell the class what they did, what they **observed** and what they **recorded**.

**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**: 2 types: fluffy balls, hairy on a stalk; **fruit**: pair of 3-sided, smooth, brown nuts in a spiky case.

#### PLENARY 1. PUPILS HAVE OBSERVED and RECORDED TREE BARK. 2. PUPILS KNOW THE 6 CLUES TO A BEECH TREE'S IDENTITY.



**Follow-up lessons**: **RECORD OBSERVATIONS** in the **Science Diary**. Make a grand collection of all words that describe tree bark. Say, 'We **record our observations**'.