

KS1 Y1 Plant Science

Lesson Plan 4, December

Seeds in fleshy fruits and nuts. Holly.



Objective: 1. GATHER, OBSERVE, CLASSIFY and RECORD SEEDS IN FLESHY FRUITS
2. IDENTIFY and NAME HOLLY TREES 3. **PLANT SOME TREE SEEDS.**

You will need:

1. Fruit of lots of different trees including everyday fruit like apples, plums.
2. Tools to open fruit and nuts to show seeds (knife and board, nut crackers).
3. Hello Trees book Hetty and Homer Holly.
4. Plant pots, soil and citrus-bag netting for follow-up seed planting.



You need to know:

'Fruit' is a useful and correct term for all seed-bearing structures.

Scientific
method
Plants

Before the lesson: **GATHER** lots of different tree fruits. Provide them yourself, ask children to collect them out of school time but, if possible, take pupils out into their **local environment** to where they can roar about each filling a carrier bag with tree fruits. Add fruit-bowl fruit: eg plums, apples.

Beware: keep fingers away from lips. Wash hands after handling fruits.

LESSON

Geog
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CLASSIFY SEEDS INTO ANIMAL OR WIND DISPERSED.

Ask **where** the trees were, and their location in relation to school.

Remember: **birch, ash, maple, hornbeam** and **conifer seeds** dispersed by wind.

Remember: windborne **seeds** are dry (light) and have wings.

Designate one table for wind-dispersed seeds and one for other seeds.

Say, 'We are going to **CLASSIFY** seeds by whether or not they are dispersed by wind.'

Remember: the seeds need to reach somewhere where there will be soil, light, water, space.

Ask pupils in turn to hold up one of their seeds and **say** on which table the seed should go.

When pupils have got the hang of it, get them to put the rest of the seeds on the right table.

Confirm: This **set** of seeds are light and have wings. They can be carried by the wind.

OBSERVE NUTS AND FLESHY FRUITS:

Say 'This **set** of fruits is too heavy to be carried far by the wind. 'Let's put them in **size order**.'

Ask a pupil to give you the **biggest**. Another pupil to give you the **next biggest** and so on.

Confirm with pupils **that all the fruits come from trees:** apples from an apple tree etc.

Find the seed within the fruit: cut into, squidge or crack with nut-crackers each fruit in turn.

If there is no seed in wild fruit say, 'Something went wrong as the fruit was being formed';

If no seeds in bought fruit say 'Scientists can do clever things to give us seedless fruit'.

Place the seeds **in size order**. Elicit **words for seeds:** **pips, stones, kernels**.

Elicit descriptions. Ask how these seeds might reach a good place to grow.

Leave the seeds out but take a break to read about **HOLLY** trees and their berries.



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Plants
English
Animals
Seasons



Read 'Hetty and Homer Holly' so pupils can **IDENTIFY and NAME HOLLY TREES**.

- Explain: you will read a story about a **tree** that has **fleshy fruit**, a **HOLLY TREE**.
- Please **remember LEAVES, FLOWERS, FRUIT, BARK and TREE SHAPE**.
- While reading, emphasise: **TREE SHAPE, BARK, LEAVES** (not always spiky), **FRUIT**.
- Clarify: **2 separate trees: one has flowers with pollen, other has flowers that develop into berries. Both are HOLLY TREES.**
- Elaborate on **tree** being **evergreen: leaves** don't all fall off in **Autumn**.
- Emphasise **seasons'** changes in temperature, changes in the tree.
- Remind pupils of **dormouse: sleeping now: Winter, cold**.



English
Method
Plants



Comprehension: IDENTIFY and NAME HOLLY TREES

- Elicit: **LEAF** (shape, colour, size), **BARK** (colour, feel), **TREE SHAPE**.

Ask pupils to stand and make the **SHAPE OF A HOLLY TREE** in the air (as dormouse).

Ask pupils to outline the **SHAPE OF A HOLLY BERRY** (small oval) on their hand.

Ask pupils to outline the **SHAPE OF A SPIKY HOLLY LEAF** on their hand.

Ask pupils to outline the **SHAPE OF A SMOOTH HOLLY LEAF** on their hand.



Method
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OBSERVE FLESHY FRUITS: ask simple questions, suggest answers.

- Ask pupils to suggest answers to questions. **All suggestions valid.** Explore implications. Do big **fruits** have big **seeds**? What benefit is large **fruit** size; small **fruit** size? What benefit large **seed** size; small **seed** size? (see '[Conkers vs birch seeds](#)') Which bits of the fruit would be eaten? Which **creatures** (including **humans!**) might eat which bits? Would the creature swallow the **seed** whole or spit it out? Would the **seed** be damaged by being chewed; by going through the **creatures'** guts? Which **creatures** might store the **seed** for later? Would this be good for the **seed**? Would you say some **creatures** are **seed** stealers and some **seed** helpers? **Use a magnifying glass.**

RECORD OBSERVATIONS in the Outdoor Diary. 'We record our observations'.

Remind pupils:

HOW TO IDENTIFY HOLLY: BARK, TREE SHAPE, LEAF, FLOWERS, BERRIES.

Seeds need soil, light, water and warmth to grow.

Birds eat holly fruit and poo the seeds later, maybe in a good place to grow.

Other seeds are dispersed by wind or by birds, humans or other animals.

Seeds germinate when warm weather follows cold – in Spring.

PLENARY

1. Pupils can now **IDENTIFY AND NAME HOLLY TREES**.

2. Pupils have **GATHERED, OBSERVED, CLASSIFIED and RECORDED** tree fruits.

Plants
Seasons

Follow-up lesson (as in November): PLANT SOME TREE SEEDS in pots. Cover some pots with netting to deter mice and squirrels and leave them outside. Keep some pots indoors. Put some seeds in fridge (to be planted in **Spring**).