

The Life Cycle of a Tree

• A seed is planted in the ground...

• Time passes and a small plant breaks through the surface of the ground.

• The plant grows. A young tree is called a **SAPLING...** 

• The sapling grows into a big **MATURE** tree...



#### Every tree has four main parts:



#### All trees are different:



- A tree grows old, all the leaves fall off and the tree dies.
- The tree falls to the ground.
- Seeds fall into the ground and a <u>NEW</u> tree will grow.
- This is called the **LIFECYCLE** of tree.

#### How old is the tree?



- The <u>age</u> of a tree can be known by counting the number of <u>rings</u> that are found inside the **trunk** of the tree.
- The more <u>rings</u> there are, the <u>older</u> the tree.

### Project One – *Learning about Leaves:*

- 1. Asking a grown-up to help you, begin by putting together all of the following materials:
  - A mobile phone with camera.
  - One A4 sheet of white paper or a small piece of white cloth.
  - A 12 inch ruler (the ruler is used to give <u>size</u> and <u>scale</u> to the leaf being photographed).



## Now you are going to go out on a quest!

- 1. When you have readied all of your equipment, visit a local park, nature walk or garden centre.
- 2. Whilst you are out on your visit, collect any leaves which you see lying around.
- 3. Place the leaf on the white paper or cloth, with the ruler positioned alongside.
- 4. Take a photograph of **both** sides of the leaf.
- 5. Compare the photographs you have taken with pictures in a nature book, or have a look on the internet and see if you can find any leaves which match your photographs.
- 6. Try to identify each of the different types of leaf... this will help you to recognise different types of trees!





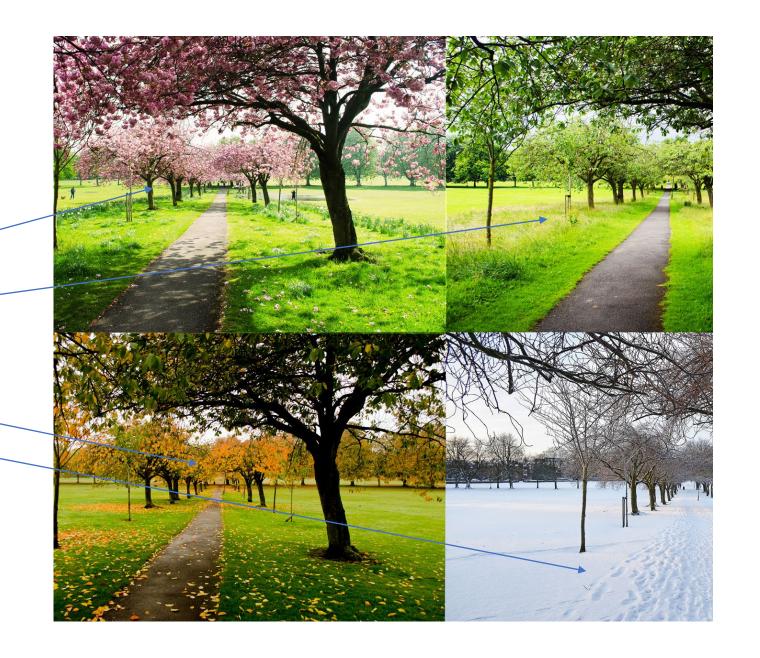


### Recording your results:

- When you have finished your photographs, you should record your work in a journal, scrapbook or album. You can do this by hand or on the computer.
- Next to your photograph, make a record of the following:
  - The type of tree from which the leaf came
  - The <u>size</u> and <u>colour</u> of the leaf
  - Where and when the leaf was found
- You now have your very own record of trees and leaves in your local area!
- Well done!!!

# Project Two — The Cycle of the Seasons:

- There are **four** seasons:
  - Spring
  - Summer
  - Autumn
  - Winter
- After the winter is over, the spring returns once more...
- ... this is called "the Cycle of the Seasons."



## Find a local spot which you really love, or which means something special to you:

- Take a photograph this local spot from the same position and at the same time during each of the four seasons.
- Make a note of when you took your photographs.
- You can then put your photographs into a journal, scrapbook or album.
- Next to your photographs, write down all of the similarities and differences you can see as the seasons have changed.
- You now have a record of the Cycle of the Seasons.

#### Well done!!!



## Project Three - Different Types of Trees:

- Any tree that does <u>NOT</u> shed its leaves when <u>Autumn</u> arrives is called an <u>EVERGREEN</u> tree.
- Using the books or the internet to help you, research types of <u>evergreen</u> trees which grow <u>naturally</u> in the UK.



Any tree that does <u>shed</u> its <u>leaves</u>
or its <u>spines</u> or its <u>cones</u> when
<u>Autumn</u> arrives is called a
<u>SEASONAL</u> or <u>DECIDUOUS</u> tree.

 Using books or the internet to help you, research types of <u>seasonal</u> or <u>deciduous</u> trees which grow <u>naturally</u> in the UK.



• **SUB-TROPICAL** trees are trees which have been **brought** to the UK from other countries.

• Using books or the internet to help you, research and identify **sub-tropical** trees now growing in the UK.



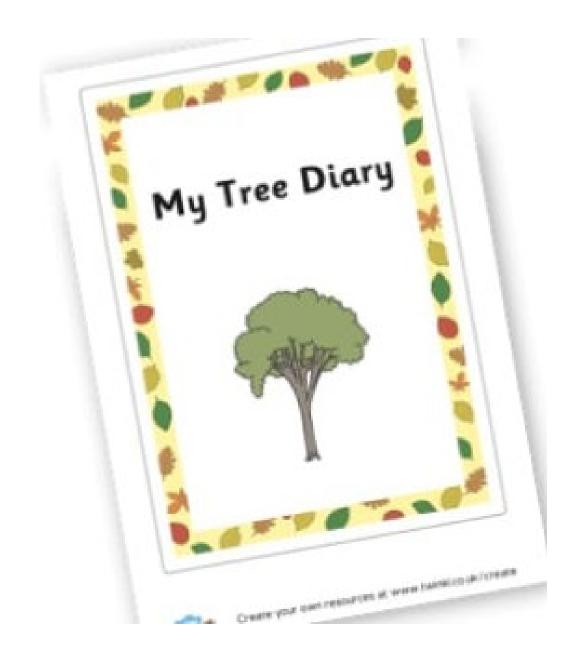
• TROPICAL trees are trees which have been brought to the UK from other countries.

• Using books or the internet to help you, research and identify **tropical** trees now growing in the UK.



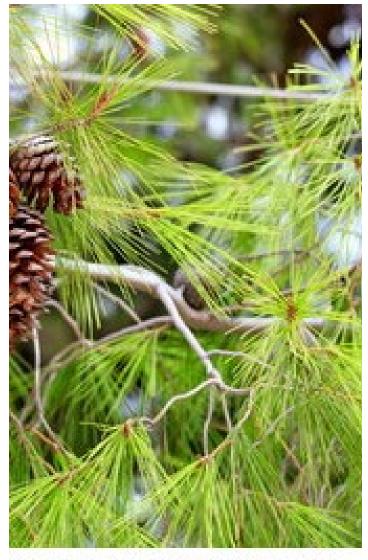
### Now you are going to go on *another* quest!

- Asking a grown-up to help you, take your camera or camera phone out to a place where there are lots of trees.
- Take photographs of the different trees you find and, using books or the internet to help you, see if you can <u>identify</u> them.
- Once you have done this, do some research and <u>classify</u> each type of tree. Are they:
  - Native?
  - Evergreen?
  - Deciduous or Seasonal?
  - Tropical?
  - Sub-tropical?
- Record your results in a scrapbook, journal or diary.
- Compare the leaves of the various varieties and spot the differences in the leaf.
- You have now learned all about the different types of tree which can be found in the British Isles.
- Well done!!!



### Project Four – Native British Trees:

- Here are just some of the trees which are native to the British Isles:
  - Ash
  - Silver Birch
  - Oak
  - Willow
  - Beech
- Asking a grown-up to help you, do some research (using books or the internet) about the different types of native trees.
- With your camera or camera phone, go for a walk around your local area and take some photographs of the native trees which you can see.
- Some trees will have <u>cones</u> and others will have <u>spines</u>. Examine the different trees you see and work out which is which.
- Put your findings into your journal, scrap book or diary and make a note of where and when your photographs were taken.
- You are now able to identify native British trees and can tell the difference between cones and spines.
- Well done!!!



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#### "Anyone for Conkers?"

- Conkers is a traditional British game which has been played by children for generations.
- I bet, if you ask your Dad or your Grandad about it, he will be able to tell you lots of stories about how he played conkers when he was a boy!
- Conkers come from **Chestnut trees**.
- You can collect conkers in the autumn. By piercing them from top-to-bottom using a hot needle (ask a grown-up to help you), you can thread each conker onto a piece of string.
- Then you play against an opponent: the aim of the game is to knock the other player's conker off their string.
- There are lots of different techniques to do this ... but watch out for your knuckles!





### Project Five – Watching Roots Grow:

#### You will need:

- At lead four dried broad beans
- At least two glass or clear plastic tumblers
- Some blotting paper

#### • Instructions:

- 1. Cut the blotting paper so that the paper isn't higher than the tumbler. Very carefully **moisten** the blotting paper, and place it around the inside of the tumbler.
- 2. Put a broad bean between the glass surface of the tumbler and the blotting paper. Place this on a window sill.
- 3. Prepare a second tumbler with a broad bean in the same way. Put this tumbler into a dark cupboard.
- 4. Take a photograph of both tumblers once a week and make a simple drawing in your journal or notebook.
- 5. After one month, compare the results. What do you notice?
- 6. After two months, compare the results. What do you notice?
- What have you learned about the conditions needed for plants to grow?



