



Lesson Plan: Grouping of Plants

Grade Level: 3

Subject: Life Science

Duration: 45–60 min

NGSS 3-LS1-1: Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.

Learning Objectives

By the end of this lesson, students will be able to:

- **Identify** the various characteristics used to classify plants, such as size, structure, and reproductive methods.
- **Distinguish** between deciduous and coniferous trees based on their leaves and seed



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Materials Needed: (all links are included in this PDF)

- Printed copies of the Study Guide (<https://newpathworksheets.com/api/guide/study-guide-science-grade-3-grouping-of-plants.pdf>)
- Activity Lesson for labeling and matching (<https://newpathworksheets.com/api/activity-lesson/activity-lesson-science-grade-3-grouping-of-plants-4.pdf>)
- Worksheet for Independent Practice (<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-grouping-of-plants-1.pdf>)



- Quiz Worksheet for Assessment
(<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-grouping-of-plants-3.pdf>)

Lesson Procedure

Step 1: Introduction (5 minutes)

- Ask the class: 'Look at the trees and plants outside. Do they all look the same? How are they different?'
- Introduce the idea that plants can be grouped by their parts, such as leaves, stems, and roots.

Step 2: Direct Instruction (15 minutes)

- Distribute the Study Guide and read about 'How Plants Are Grouped' together



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(<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-grouping-of-plants-1.pdf>)

- Have students circle the correct answers regarding how coniferous trees produce seeds and identifying annuals.

Step 5: Assessment (10 minutes)

- Administer the quiz worksheet to evaluate understanding of plant groups and parts.
(<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-grouping-of-plants-3.pdf>)



- Review answers to check if students can correctly identify root systems and distinguish between seeds and spores.

Differentiation Strategies

For advanced learners:

- Challenge students to research a local plant and classify it as an annual or perennial.

For learners needing support:

- Provide real-life examples of pine cones and leaves to help students feel the difference between coniferous and deciduous textures.



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- Worksheet 1 PDF (<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-grouping-of-plants-1.pdf>)
- Worksheet 2 PDF (<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-grouping-of-plants-2.pdf>)
- Worksheet 3 PDF (<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-grouping-of-plants-3.pdf>)
- Worksheet Start to Finish PDF (<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-grouping-of-plants-from-start-to-finish-4.pdf>)

GROUPING OF PLANTS

How Plants Are Grouped

Plants are often put into groups by the type of parts or structures they have. They can be grouped according to their **types of leaves, stems, flowers, roots, and even seeds.**

Many plants have **leaves** that look similar while others have totally different kinds of leaves. Plant and tree leaves may be different in size, shape, and color.

Trees

Trees can be placed into groups according to whether or not they lose their leaves in the fall.

- **Deciduous trees** are trees that lose their leaves in the fall. An oak tree is a deciduous tree.



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Lesson Checkpoint:

What is the difference between a deciduous tree and a coniferous tree?

Plants and trees also have various **stems**. For example, the stems of most trees are thick, strong, and have bark protecting them, while a stem of a tulip is thin, green, and fragile.

Whether a plant or tree produces **flowers** can determine what group plants and trees belong in as well. Some plants and trees produce flowers, while others do not. Flowering plants have parts that make seeds or pollen. Plants that flower grow new flowers by producing seeds. Plants that do not produce flowers or seeds make new plants in a variety of other ways.



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Plants and trees can also be put into groups depending on whether or not they produce **seeds or cones**. Flowering plants and trees produce flowers. Coniferous trees do not produce flowers. They produce cones instead.

Two different kinds of cones grow on coniferous trees. One kind of cone that grows on coniferous trees is a small pollen cone. Another kind of cone that grows on coniferous trees is a large seed cone.

In order for a coniferous tree to make seeds, pollen from a small pollen cone needs to land on the large seed cone. The wind carries pollen from a small pollen cone to a large seed cone on a coniferous tree. When pollen mixes with the seeds on a large seed cone, seeds start growing. Seeds grow under the scales of a large seed cone on a coniferous tree.



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Let's not forget one of the most important parts of a plant...the **roots**. A variety of plants and trees have long roots that grow deep into the ground, while others have short roots that grow very shallow.



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flowering plants only live one year, called annuals. Other plants die during the fall and then in the spring they grow again, called perennials.



Lesson Checkpoint:
Name two ways plants can be grouped
besides by their parts.



Grouping of Plants

Sci
C

Name _____ Class _____ Date _____

Plants can be grouped according to their types of leaves, stems, flowers, roots and even seeds.

Leaves



Trees can be grouped according to whether or not they lose their leaves in the **Coniferous** or **Deciduous** groups.

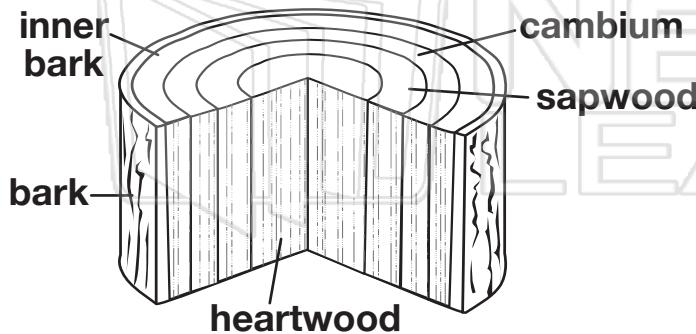
Flowers
flower



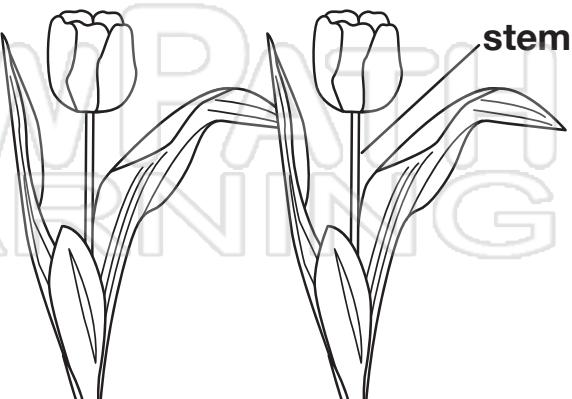
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The stem of most **trees** is thick, strong and has **bark** protecting it.



The stem of a **tulip** is thin and fragile.



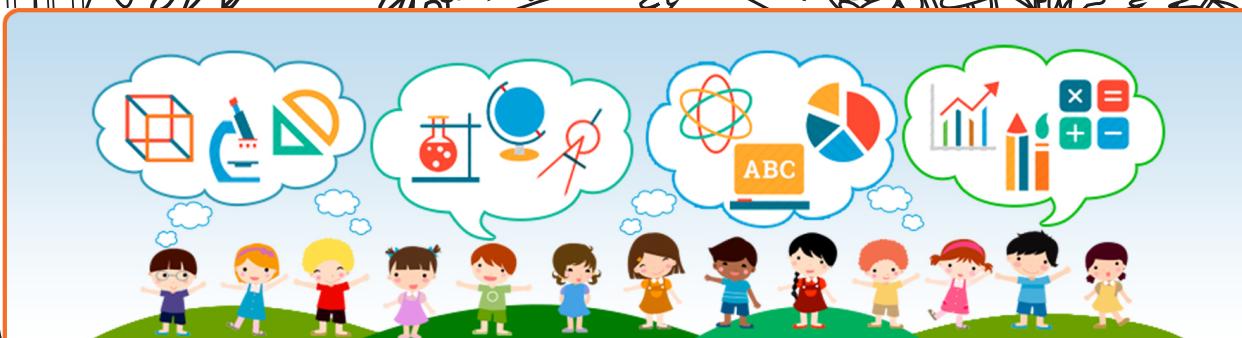


Grouping of Plants

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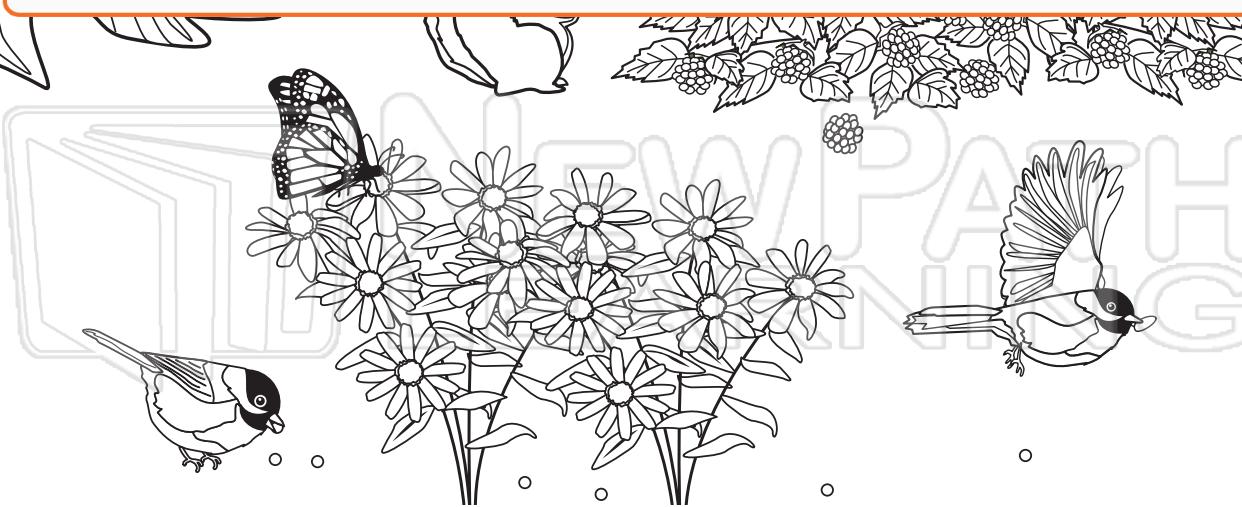
Name _____ Class _____ Date _____

There are many kinds of plants. How many do you see?



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Grouping of Plants

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Name _____ Class _____ Date _____

Find different kinds of leaves and flowers.

Leaf Types

Draw and label 3 types of leaves.



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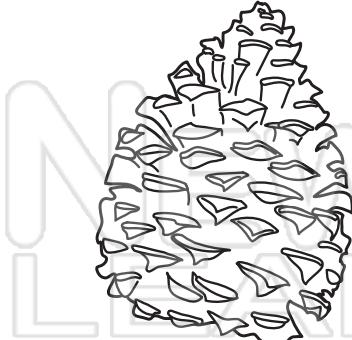
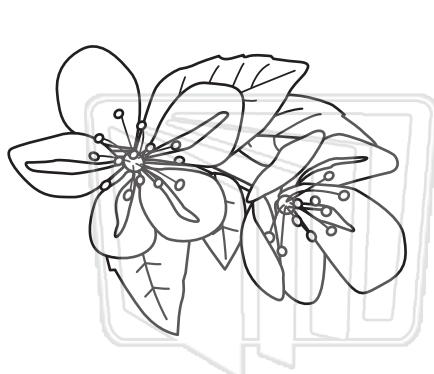


Grouping of Plants

Sci
C

Name _____ Class _____ Date _____

Match the different **structures** to a tree or plant. Some match more than one.



deciduous tree

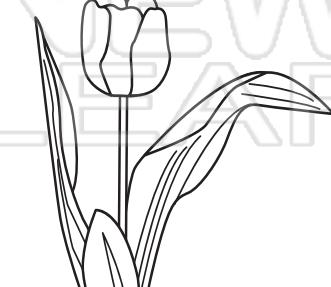
coniferous tree

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non-flowering plant



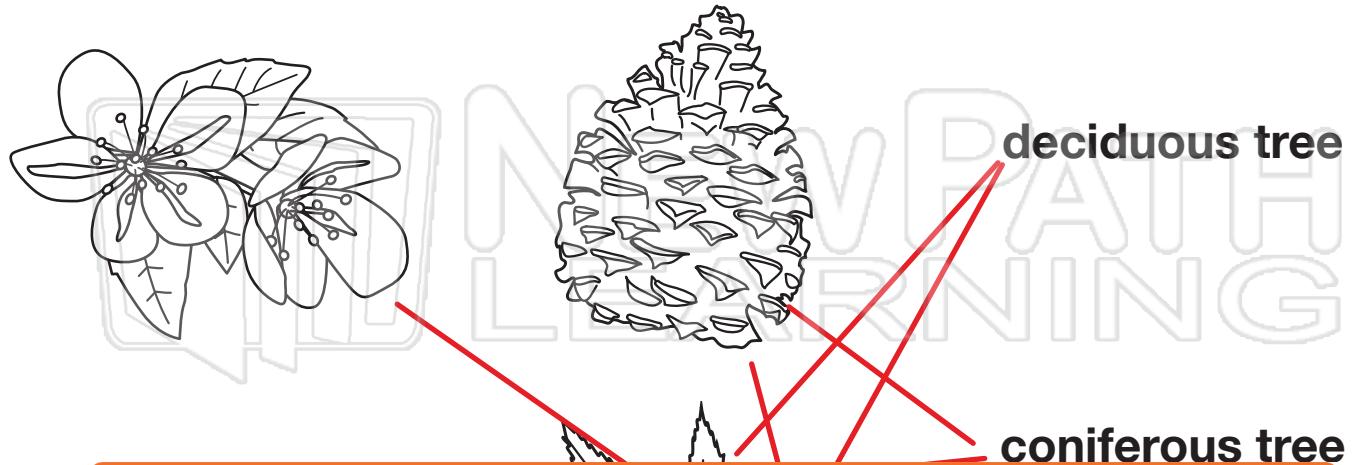


Grouping of Plants

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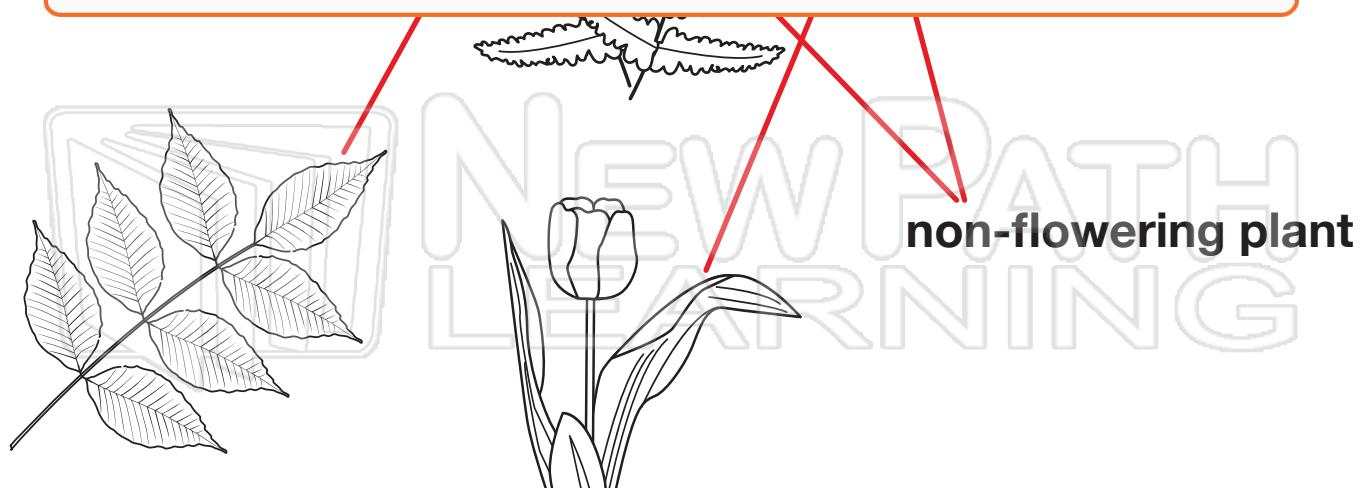
Answer Key

Match the different **structures** to a tree or plant. Some match more than one.



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Name _____ Class _____ Date _____

1 Some **flowering plants** only live one year. Others die during the fall and then in the spring they _____.

- A die after one day
- B grow smaller than the year before
- C grow again
- D never need watering



3 Flowering plants and trees are different in that they _____.

- A need water
- B have the same scent
- C produce seeds



2 Flowering plants and flowering trees have some **things in common**; for instance, both grow flowers that produce _____.

- A leaves
- B seeds
- C stems
- D roots



4 Plants that flower **grow new flowers** by producing _____.

- A stems
- B leaves
- C seeds



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D a short tree



D hands



9 What do **flowering plants and trees** do that **coniferous trees** do not do?

- A They produce flowers.
- B They grow.
- C They need water.
- D They die after a year.



10 What do **coniferous trees** produce **instead of flowers**?

- A two stems
- B large roots
- C leaves
- D cones





Name _____ Class _____ Date _____

1 Some **flowering plants** only live one year. Others die during the fall and then in the spring they _____.

- A die after one day
- B grow smaller than the year before
- C grow again
- D never need watering



C

2 Flowering plants and flowering trees have some **things in common**; for instance, both grow flowers that produce _____.

- A leaves
- B seeds
- C stems
- D roots



B

3 Flowering plants and trees are **different** in that they _____.

- A need water
- B have the same scent
- C produce seeds



D

4 Plants that flower **grow new flowers** by producing _____.

- A stems
- B leaves
- C seeds



C

5



A

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D a short tree



D hands



C

9 What do **flowering plants and trees** do that **coniferous trees** do not do?

- A They produce flowers.
- B They grow.
- C They need water.
- D They die after a year.



A

10 What do **coniferous trees** produce **instead of flowers**?

- A two stems
- B large roots
- C leaves
- D cones



D

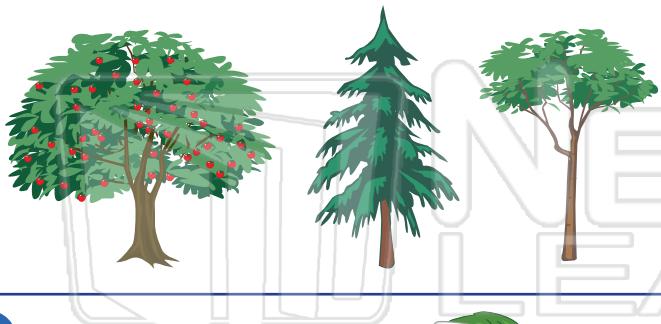


Grouping of Plants

Sci
C

Name _____ Class _____ Date _____

1 Plants and trees can be grouped by the **type of leaves** they have. Circle the two trees with **similar leaves**.



2 Plants can also be **grouped** by the type of



6 Plants that **flower** grow **new plants** by producing _____.



7 Coniferous trees have leaves that look like _____.

3



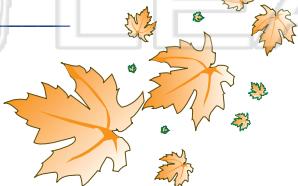
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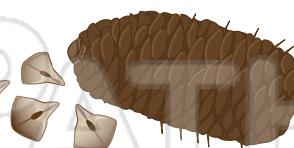
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trees **lose their leaves** in the **fall**.



of a large seed cone.

10 Some flowering plants only live one year. Others die during the **fall** and then in the **spring** they _____.





Grouping of Plants - Answer Key

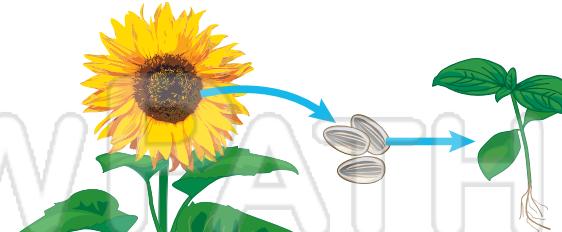
Sci
C

Name _____ Class _____ Date _____

1 Plants and trees can be grouped by the **type of leaves** they have. Circle the two trees with **similar leaves**.



6 Plants that **flower** grow **new plants** by producing **seeds**.



2 Plants can also be **grouped** by the type of **flowers**.



7 Coniferous trees have leaves that look like **needles**.

3



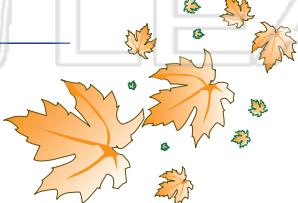
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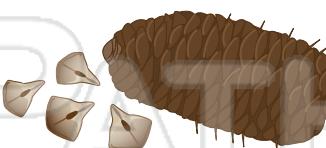
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5

Deciduous trees **lose their leaves** in the **fall**.



of a large seed cone.



10

Some flowering plants only live one year. Others die during the **fall** and then in the **spring** they grow again.