

Why Do Leaves Change Color?

Grades 3-4

Nonfiction

- 1 Every autumn, many trees trade their green leaves for shades of yellow, orange and red. It looks like magic, but it is really science.
- 2 Leaves are green because they are full of a pigment called chlorophyll. A pigment is a substance that gives something its color. Chlorophyll helps the tree use sunlight, water and air to make food. This process is called photosynthesis.
- 3 Leaves also contain yellow and orange pigments. During spring and summer, there is so much green chlorophyll that these colors are hidden.
- 4 In autumn, the days get shorter and cooler. Many trees stop making chlorophyll and get ready to rest for the winter. As the green fades away, the yellow and orange colors that were there all along finally show.
- 5 Some trees, like certain maples, also make new red and purple pigments in the fall. That is why some forests glow bright red.
- 6 Soon, the tree seals off each leaf where it joins the branch. The leaf dries out and falls to the ground, and the tree waits for spring.

Draw something you learned from this text.

Name: _____

Date: _____

Questions: Why Do Leaves Change Color?

Read the passage again if you need to. Circle the best answer.

1. What is chlorophyll?

☐ a A green pigment in leaves

☐ c A type of soil

☐ b A kind of tree

☐ d A red flower

2. Why can't we see yellow and orange in summer leaves?

☐ a They are not there yet

☐ c The sun is too bright

☐ b Too much green chlorophyll hides them

☐ d Rain washes them away

3. What happens to the days in autumn?

☐ a They get longer and hotter

☐ c They stay the same

☐ b They get shorter and cooler

☐ d They get rainier

4. In the text, what does "pigment" mean?

☐ a A type of leaf

☐ c A tree's food

☐ b A substance that gives something its color

☐ d A season

5. Explain in your own words why leaves turn yellow in autumn.

Reading Comprehension: Answer Key

Why Do Leaves Change Color?

1. a) A green pigment in leaves
2. b) Too much green chlorophyll hides them
3. b) They get shorter and cooler
4. b) A substance that gives something its color
5. Sample answer: Trees stop making green chlorophyll, so the yellow pigments that were hidden all along can be seen.