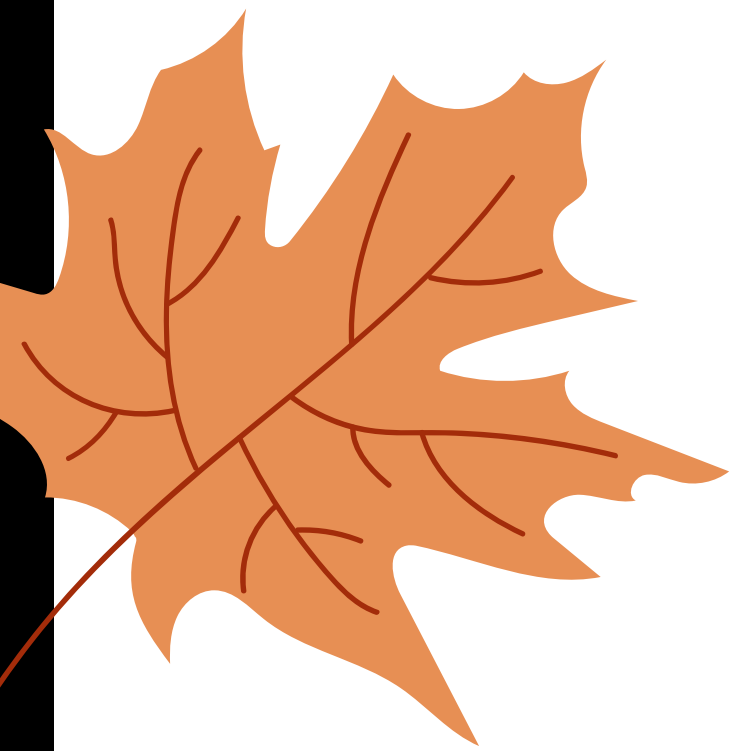


# Why Leaves Change Color?

## READING COMPREHENSION



**NO-PREP &  
EDITABLE**

**A RAINBOW OF LEAVES**  
So, when you see trees changing color in the fall, it's  
like a rainbow! Each tree might have  
a different mix of chemicals in



### WHY LEAVES CHANGE COLOR

Have you ever wondered why leaves change color? It's a magical process that happens every year, and it's all because of science!

#### WHAT HAPPENS IN FALL?

In the fall, when the weather gets cooler and the days get shorter, something special starts to happen. The trees are getting ready for winter by...



Leaves are green because of a chemical called chlorophyll. Leaves make food for the tree through a process called photosynthesis.

When the days get shorter and there is less sunlight, the tree stops making chlorophyll, the green color fades away, and other colors start to show!

#### RED, ORANGE, AND YELLOW

The colors you see in the fall, like red, orange, and yellow, are actually there all year round. They are just hidden behind the green chlorophyll. During the spring and summer...

#### THE ROLE OF CAROTENOIDS

Some of the colors, like yellow and orange, come from carotenoids. These chemicals are always in the leaves, but they are only visible when the chlorophyll goes away.

#### THE MAGIC OF ANTHOCYANINS

Other colors, like red and purple, come from chemicals called anthocyanins. Anthocyanins are produced in the fall when the leaves react with sunlight.

...most beautiful parts of fall. and that nature is always full  
...remember the science behind it. It's and it's all thanks to the amazing  
...possible. From Mickey Mouse to Disneyland, Walt Disney's magic will continue to inspire generations to come.

### WHY LEAVES CHANGE COLOR

CHOOSE THE CORRECT ANSWER.

1. What happens to trees in the fall?  
a. They lose more leaves.  
b. They stop losing their leaves.  
c. They change to different types of trees.  
d. They grow altogether.

2. Why do leaves have their green color?

3. What happens to chlorophyll when the days get shorter?  
a. It increases in quantity.  
b. It decreases in quantity.  
c. It stays the same.  
d. It disappears.

4. What are carotenoids responsible for?  
a. The green color of leaves.  
b. The yellow and orange colors of leaves.  
c. The red and purple colors of leaves.  
d. All of the above.

**READING COMPREHENSION**

**MCQ'S**

**QUESTIONS**

**ANSWER KEY**

# READING PASSAGES WITH TEXT DEPENDENT QUESTIONS

## WHY LEAVES CHANGE COLOR

Have you ever wondered why leaves change color? It's a magical process that happens every year, and it's all because of science!

### WHAT HAPPENS IN THE FALL?

In the fall, when the days start getting shorter and the weather gets cooler, something special starts to happen to the trees. They prepare for winter by getting ready to lose their leaves.



### THE GREEN MACHINE

During the spring and summer, leaves are green because of a chemical called chlorophyll. Chlorophyll helps the leaves make food for the tree through a process called photosynthesis.

### A COLORFUL SURPRISE

But when the days become shorter and there is less sunlight, the tree stops making chlorophyll. Without chlorophyll, the green color fades away, and other colors that were there all along start to show!



### RED, ORANGE, AND YELLOW

The colors you see in the fall, like red, orange, and yellow, are actually there all year round. They are just hidden behind the green chlorophyll during the spring and summer.

### THE ROLE OF CAROTENOIDS

Some of the colors, like yellow and orange, come from chemicals called carotenoids. These chemicals are always in the leaves, but they become more visible when the chlorophyll goes away.

### THE MAGIC OF ANTHOCYANINS

Other colors, like red and purple, come from chemicals called anthocyanins. Anthocyanins are produced in the fall when the sugars trapped in the leaves react with sunlight.

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### A RAINBOW OF LEAVES

So, when you see trees changing color in the fall, it's like nature's own rainbow! Each tree might have different colors because of the mix of chemicals in its leaves.



### THE BEAUTY OF CHANGE

Watching the leaves change color is one of the most beautiful parts of fall. It's a reminder that change can be wonderful and that nature is always full of surprises.

### CONCLUSION

Next time you see leaves changing color, remember the science behind it. It's a magical process that happens every year, and it's all thanks to the amazing world of nature!

READING COMPREHENSION

COLORED & B/W  
VERSIONS INCLUDED

Name \_\_\_\_\_

Date \_\_\_\_\_

## WHY LEAVES CHANGE COLOR

DIRECTIONS CHOOSE THE CORRECT ANSWER.

- 1. What happens to trees in the fall?**
  - a) They grow more leaves
  - b) They prepare to lose their leaves
  - c) They turn into different types of trees
  - d) They stop growing altogether
- 2. What gives leaves their green color during the spring and summer?**
  - a) Chlorophyll
  - b) Carotenoids
  - c) Anthocyanins
  - d) Sunlight
- 3. What happens to chlorophyll when the days become shorter?**
  - a) It increases in quantity
  - b) It fades away
  - c) It turns red
  - d) It changes into carotenoids
- 4. Which chemical is responsible for colors like yellow and orange in leaves?**
  - a) Chlorophyll
  - b) Carotenoids
  - c) Anthocyanins
  - d) Sunlight
- 5. What causes colors like red and purple in some leaves?**
  - a) Chlorophyll
  - b) Carotenoids
  - c) Anthocyanins
  - d) Sunlight

### SHORT ANSWER QUESTIONS

1. What causes leaves to change color?
2. What is chlorophyll's role in leaf color?
3. Name two types of chemicals responsible for leaf colors other than green.
4. When do trees stop producing chlorophyll?
5. Why does each tree have different colors?

6. When are colors like red and purple in leaves?

- a) During spring
- b) During summer
- c) During fall
- d) During winter

7. What is the role of carotenoids in leaves?

- a) They make leaves green
- b) They make leaves red and purple
- c) They make leaves yellow and orange
- d) They help leaves grow bigger

8. What happens to sugars trapped in leaves during fall?

- a) They disappear
- b) They react with sunlight
- c) They turn into chlorophyll
- d) They turn into carotenoids

9. Why does each tree have different colors?

- a) Because they have different types of chlorophyll
- b) Because they have different amounts of chlorophyll
- c) Because they have different chemicals
- d) Because they have different shapes

10. What is the main idea of the passage?

- a) Trees lose their leaves in the fall
- b) Leaves change color because of chemicals
- c) Fall is the most beautiful season
- d) Trees change color because of magic

## ANSWER KEY

### MCQS

1. b) They prepare to lose their leaves
2. a) Chlorophyll
3. b) It fades away
4. b) Carotenoids
5. c) Anthocyanins
6. c) During fall
7. c) They make leaves yellow and orange
8. b) They react with sunlight
9. c) Because they have different chemicals in their leaves
10. b) Leaves change color because of chemicals

### SHORT-ANSWER QUESTION

1. Leaves change color in the fall due to the decrease in sunlight and shorter days.
2. Chlorophyll gives leaves their green color during spring and summer by helping in photosynthesis.
3. Carotenoids and anthocyanins are two types of chemicals responsible for leaf colors other than green.
4. Trees stop producing chlorophyll when the days become shorter and there is less sunlight.
5. Each tree has different colors in the fall because of the mix of chemicals in its leaves.

ANSWER KEY  
INCLUDED

10 - MCQ'S & 5  
QUESTIONS