



A visual collaboration platform  
for project based learning



# Why do leaves change colors?

6th Grade | Science & ELA

## Overview & Purpose

Students are prompted to read a brief article about why leaves change colors in the fall. Students then use Project Pals to create a visual representation illustrating their comprehension of the article's main idea. Students are encouraged to orally present their understanding and representation of the main idea to their classmates.

By constructing their own representation of the article in Project Pals, students build a base of knowledge about the topic, which can serve as a jumping off point for follow-up questions, and an opportunity to organically evolve the reading comprehension assignment into an inquiry-based project to further research, investigate, and visualize concepts not addressed in the article.

## Education Standards

R.1: What the text says

R.2: Central Idea

## Objectives

- Demonstrate comprehension of the main idea of the article
- Create a meaningful visual representation of the student's understanding
- Explain the main idea to classmates utilizing the visual aid
- Create a base of knowledge about the topic in Project Pals that can be used as a jumping off point for further inquiry

## Materials Needed

- [Newsela](#) article
- [Project Pals](#) account

## Verification

- Did the students' visual representation explain the main idea of the article? Specifically, did they address how plants eat, and the role of chlorophyll, sunlight, seasons, and pigments in coloring the leaves.
- Was the visual representation easy to understand? Was it succinct?
- Was the student able to clearly communicate their understanding to others? Was it clear to others why leaves change colors?
- Did the student ask interesting follow-up questions? Did they identify additional information not addressed in the article that would be valuable to know when explaining why the leaves change colors? For example, what is chlorophyll and/or photosynthesis?

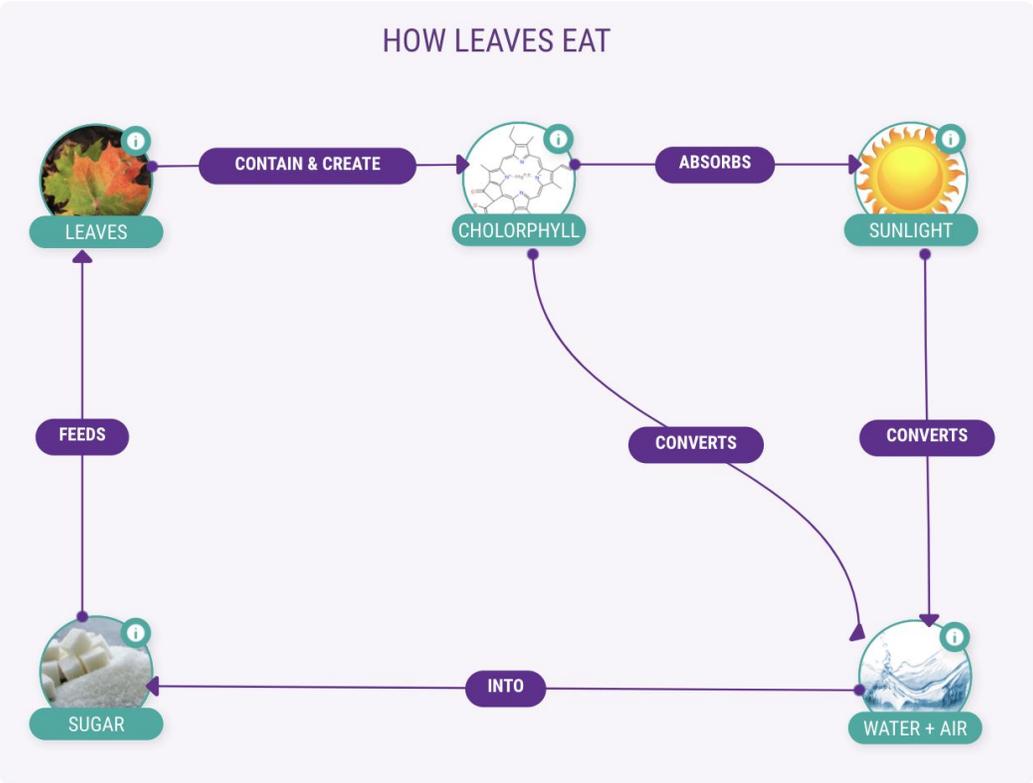
### **Activity**

- Step 1: Read the [article](#)
- Step 2: Identify what are the main ideas and components of the article
- Step 3: In Project Pals, create a visual representation of your understanding of the main idea. Sample representations are included below.
- Step 4: Ask follow-up questions about the topic that was not addressed in the article or that the student is curious about
- Step 5\*: Research and investigate additional resources to answer the follow-up questions
- Step 6\*: Use Project Pals to visualize knowledge

\* Steps 5 & 6 are optional if the teachers and students want to evolve the reading comprehension assignment into an inquiry-based project

### **Sample Visual Representations**

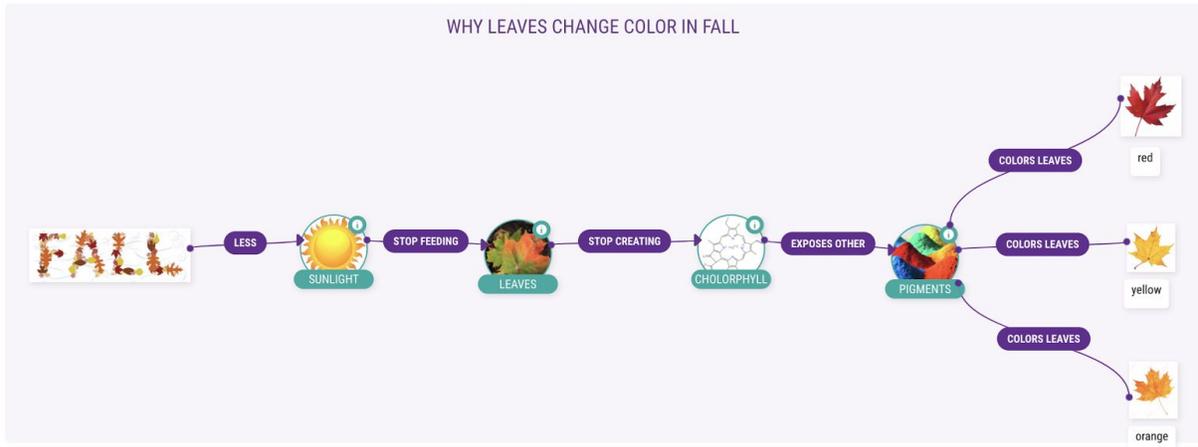
*How leaves eat*



*Why leaves are green in spring and summer*



*Why leaves change color in fall*



*Why leaves turn brown in winter*



**Sample Follow-Up Questions**

What is photosynthesis?

QUESTION

What is a pigment?

QUESTION

What is chlorophyll?

QUESTION

What type of sugar is made in leaves?

QUESTION

Why does New England have so many colorful trees in the Fall?

QUESTION