

Grade Level: Grades 6-8

Note: Can be scaled up or down as needed.

Lesson Duration:

50 minutes

Note: Adding additional activities will add to lesson duration.

Objectives:

- Students will build foundational knowledge of wheat and establish essential vocabulary.
- Students will identify the six main types (classes) of wheat grown in the U.S..
- Students will describe the characteristics, uses and growing regions of each wheat class.
- Students will match wheat types with their use and growing regions.

Materials Needed:

- 'Introducing Wheat' slide presentation
 - Includes slides for 'Types of Wheat' matching game which can be used in place of or in addition to 'Types of Wheat' activities
- 'Introducing Wheat Guided Notes' worksheet
- 'Types of Wheat' activities and handout sheets
 - Includes cards for 'Types of Wheat' matching game included in slide deck
- 'Types of Wheat' Jeopardy game
 - <https://jeopardylabs.com/play/types-of-wheat>
 - Can be in place of or in addition to 'Types of Wheat' activities
- 'Wheat Growing Regions' map (optional visual aid or handout)
- 'Types of Flour' poster (optional visual aid)
- 'Types of Wheat & Flour' fact sheet (optional visual aid or handout)
- 'Texas Wheat Facts' fact sheet (optional visual aid or handout)
- 'Amber Waves in the Rolling Plains' (optional visual aid)
 - <https://vimeo.com/channels/txfbaitc/839752087>
- 'Texas Wheat Facts' video (optional visual aid)
 - <https://www.youtube.com/watch?v=0GIhz6N-o6A>
- Printed activity sheets for each student (or uploaded to preferred LMS)

Lesson Outline:

Introduction (10 minutes)

- Distribute 'Introducing Wheat Guided Notes' worksheet and have students fill in the blanks throughout the lesson.
- Briefly discuss what wheat is and its uses, including human and animal consumption.
- Ask students to name the most recent wheat-based product they ate (bread, pasta, crackers, cookies, etc.).
- Show 'Amber Waves in the Rolling Plains' video to introduce wheat production in Texas (optional).

Introducing Wheat Lesson Plan

Direct Instruction (15 minutes)

- Present 'Introducing Wheat' slides 2-6.
- Discuss facts about wheat and its role locally and globally. (See page 4 for guided discussion questions.)
- Present 'Introducing Wheat' slides 7-28.
- Highlight the six main wheat classes grown in the U.S. (See page 4 for guided discussion questions.)
- For each class, discuss:
 - Main growing region
 - Planting and harvesting season
 - Characteristics (protein/gluten level, color)
 - Main uses (examples of products made from each type)
- For each type of wheat, have students provide other examples of products that could be made from that wheat class.
- Use slide visuals and optional 'Wheat Growing Regions' map (can be printed for individual student use or shared on screen for students to see).
- Reinforce using optional 'Types of Flour' poster.

Guided Practice (10 minutes)

- Distribute the 'Types of Wheat' matching activity from the handout.
- Work through the first question together as a class.
- Allow students to complete the rest in pairs or small groups.

Independent/Group Activity (10 minutes)

- Have students complete the fill-in-the-blank worksheet from the activity packet.
- Circulate to assist students and clarify concepts as needed.

Review and Discuss (5 minutes)

- Go over the matching and fill-in-the-blank answers as a class, allowing students to self-check and discuss any missed items.
- Highlight key facts:
 - Each class of wheat has different characteristics, growing regions and primary uses.
 - Hard wheat classes have higher protein (gluten) levels, making products with a chewier texture.
 - Soft wheat classes have lower protein (gluten), creating products with a more crumbly texture.
- Show 'Texas Wheat Facts' video to introduce wheat production in Texas (optional).

Extension (Optional, 5 minutes):

Use a built-in quiz or add interactive poll questions to recap key facts about wheat classes and regional differences.

Assessment:

- Participation in class discussions.

Introducing Wheat Lesson Plan

- Completion and accuracy of matching and fill-in-the-blank worksheets (check with provided answer key).

Differentiation:

- Pair less confident readers with peers during activities.
- Provide additional visual support.
- Challenge advanced students to research wheat production across the U.S. or around the world.

Additional Activities (Optional):

Flour and Product Match-Up

Objective:

- Connect wheat classes to end-use products.

Materials:

- Photos or actual samples of products: bread, pasta, cookies, noodles, tortillas, pastries
- Flour samples (bread flour, all-purpose, cake flour, semolina, whole wheat, white whole wheat)

Activity:

- Students match each flour or product to the wheat class it most likely comes from. Then, they test doughs made from different flours by observing texture, elasticity and how well they hold shape.

Wheat Class Geography Map

Objective:

- Connect each class to its U.S. growing region.

Materials:

- U.S. map (poster or large printable)
- Color-coded stickers or yarn for each wheat class
- Cards describing regional conditions

Activity:

- Students place class labels or yarn on the map according to primary production areas. Discuss the factors that influence which wheat class grows where.
- Extension: Add global wheat-producing regions and trade connections.

Create a Wheat Class Poster

Objective:

- Summarize learning creatively.

Materials:

- Construction paper, markers, glue, printed photos, real wheat heads or kernels.

Activity:

- Each group creates an informational poster featuring one class of wheat — including kernel photo, U.S. region, typical products and unique qualities.
- Extension: Display posters as a “Wheat Expo” for other classes.

Guided Discussion Questions:

Vocabulary

- Question: How does yield help farmers understand how successful a crop was?
- Potential Answer: Yield shows how much grain was produced per acre. Higher yields usually mean better growing conditions or farming practices.

All About Wheat

- Question: Why do you think Texas is a good place to grow wheat?
- Potential Answer: Texas has large areas for farmland and climates that are well suited to produce wheat.

Wheat Classes

- Question: How do climate and geography affect which wheat is grown in an area?
- Potential Answer: Temperature, rainfall/snowfall, soil type and growing season determine which wheat varieties will grow best in a region.

Protein & Food Products

- Question: How does protein change the texture of foods made from wheat?
- Potential Answer: Higher protein indicates stronger gluten which makes foods chewy, while lower protein means less gluten, making foods softer and crumbly.

Real-World Connections

- Question: Can you match common foods (bread, pasta, cookies) to the wheat class used to make them?
- Potential Answer: Bread—Hard Red Winter or Hard Red Spring; Pasta—Durum; Cookies—Soft Red Winter or Soft White.