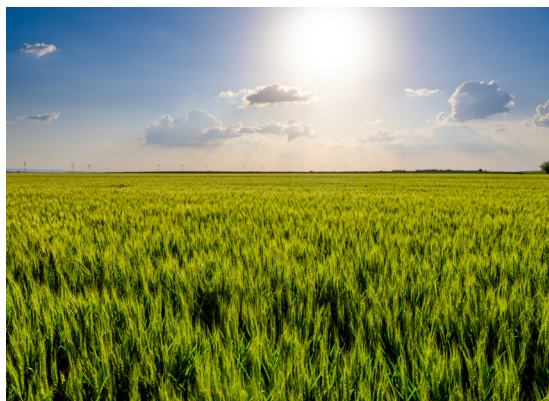




WHEAT

MIDDLE/HIGH SCHOOL



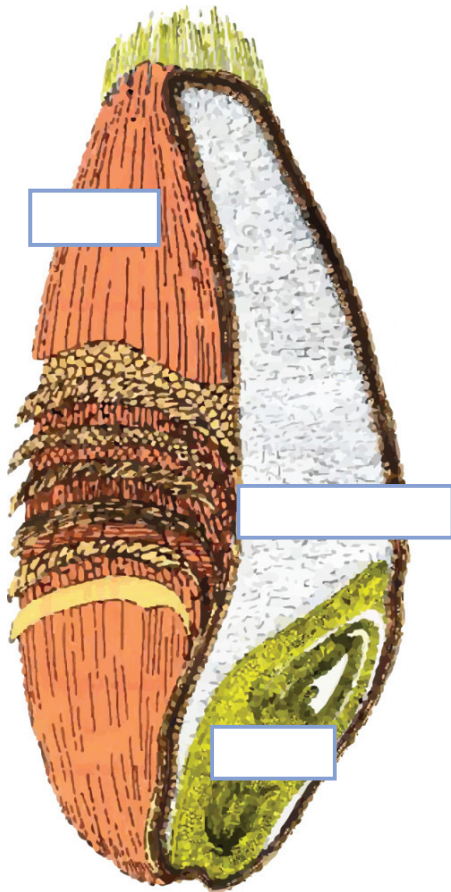
The beginning of agriculture as we know it began about 10,000 years ago. This is when people began to grow grains during the summer, store them for winter food, and use the leftover grains to plant the next year. Grains like wheat produce seeds packed with energy and nutrition which are easy to store and transport. Wheat originated as wild grasses. People domesticated the wild grasses by saving and replanting seeds with the most beneficial traits, turning them into the ancestors of the wheat we know today.



Today, wheat is an important staple food around the world. Wheat provides the flour needed to make bread, pasta, bagels, pizza crust, cakes, cookies, pretzels, and much more. Machines known as combines harvest, thresh, and winnow the wheat, which is then shipped to a mill. At the mill, wheat is cleaned, analyzed, ground, sifted, and blended into different flours.



In addition to using wheat seeds for food, the stems can be used for art. They can be woven into artful decorations and even items like baskets. The art of weaving with wheat stems is almost as old as wheat itself. Weaving has played an important role in harvest rituals for many different cultures.



ABOUT THE KERNEL

The Kernel is the seed from which the wheat plant grows. There are about 50 kernels in a head of wheat and 15,000 kernels in a pound.

Directions:

Look at the kernel drawing. Read the definitions of each part, then label the drawing.

ENDOSPERM

The endosperm combines about 83 percent of the kernel weight and is a source of white flour. The endosperm contains the greatest share of protein, carbohydrates and iron, as well as the major B-vitamins such as riboflavin, niacin and thiamine. It is also a source of soluble fiber.

BRAN

Bran makes up about 14 and a half percent of the kernel weight. Bran is included in whole wheat flour and can also be bought separately. The bran contains a small amount of protein, large quantities of the three major B-vitamins, trace minerals and dietary fiber – primarily insoluble.

GERM

Germ is about two and a half percent of the kernel weight. The germ is the embryo – or sprouting section – of the seed, often separated from flour in milling because the fat content (10 percent) limits flour's shelf-life. The germ contains minimal quantities of high quality protein and a greater share of B-complex vitamins and trace minerals. Wheat germ can be produced separately and is part of whole wheat flour.

WHEAT WORD SCRAMBLE

DBERA _____
 EPMNRSEDO _____
 UFROL _____
 NGIAR _____
 BECNMIO _____
 EWATH _____
 KLNEER _____
 RGEM _____
 EHTASRV _____
 ABNR _____

WHEAT IN OKLAHOMA



Check out this cool video about wheat in Oklahoma from the SUNUP report.

WHEAT TO FLOUR



Watch this interesting video about how wheat is turned into flour.

DID YOU KNOW?

42 states in the United States grow wheat.

One bushel of wheat has one million individual kernels.