

Name _____



Ag Mag: Wheat Guided Reading Questions

Directions: Read the article titled "Wheat" one page at a time.
After reading each page, answer the questions about what you read.

What is Wheat?

1. What type of food is wheat?

Wheat is a grain.

2. What type of plant is wheat?

Wheat is a grass.

3. Define the following parts of a wheat plant by filling in the blank lines.

Tillers: 3-12 _____ Stems _____ on a wheat plant.

Spike: A group of _____ Flowers _____ at the top of a tiller.

Kernel: Turn _____ Golden _____ Brown before harvest.

Wheat in Illinois

4. What variety of wheat is grown in Illinois?

Soft Red Winter

5. List 3 types of **foods** that use this type of wheat.

- | | | |
|-----------------------|--------------------|--------------------|
| 1. <i>Flat breads</i> | 4. <i>Cookies</i> | 7. <i>Pancakes</i> |
| 2. <i>Cereals</i> | 5. <i>Pretzels</i> | 8. <i>Biscuits</i> |
| 3. <i>Cakes</i> | 6. <i>Pastries</i> | |

6. List 3 **non-food** items that use Illinois wheat.

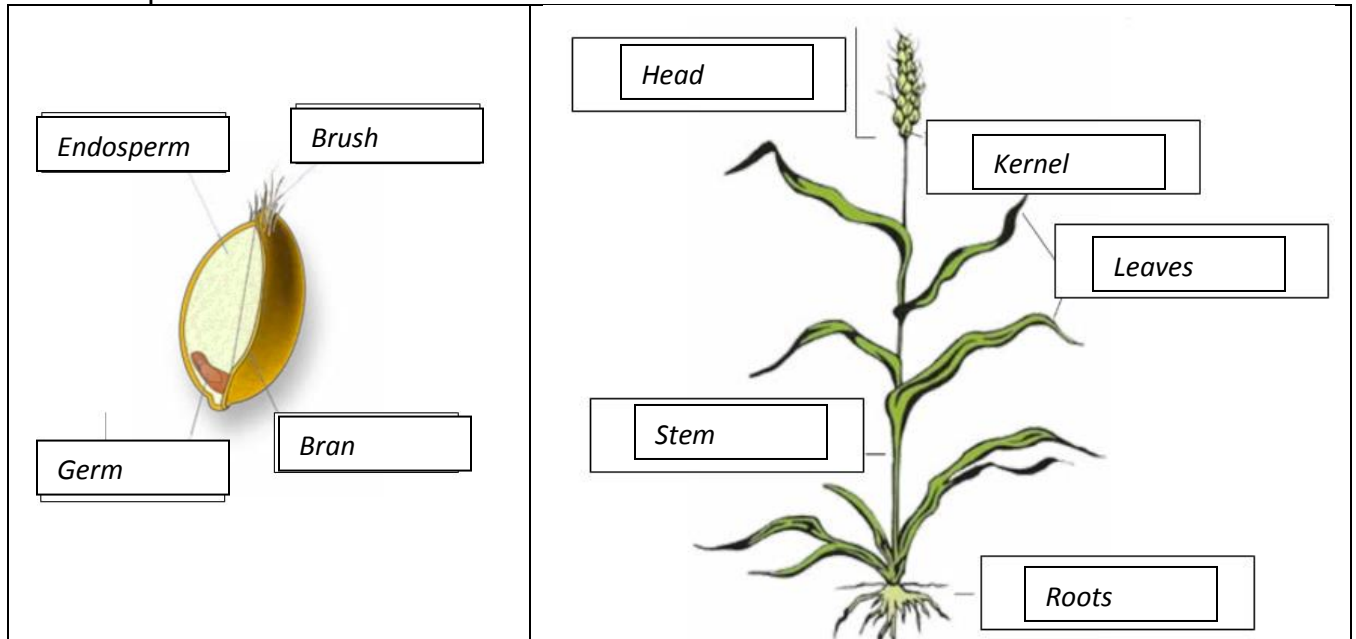
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|---------------------|------------------------------|--------------------------|
| 1. <i>Glue</i> | 4. <i>Vitamin E extracts</i> | 7. <i>Livestock Feed</i> |
| 2. <i>Pastes</i> | 5. <i>Pharmaceuticals</i> | 8. <i>Straw</i> |
| 3. <i>Cosmetics</i> | 6. <i>Pet Food</i> | |

Wheat FACTS

7. How many kernels are in a pound of wheat? 12,000 – 14,000
8. TRUE or FALSE (circle one): Wheat is only grown in Illinois.

Wheat Kernel vs. Wheat Plant

9. Label the parts of a wheat kernel.



10. How do you get whole wheat flour from a whole wheat kernel?

Endosperm, bran, and germ are ground together

Wheat Production and Nutrition

11. What happens to the wheat kernel after planting?

Absorbs moisture and swell

12. What area of the My Plate would you find wheat?

Grains Food Group

13. Wheat is a **complex carbohydrate**, which is the most efficient source of Energy and aids in Brain functions.

14. List 2 vitamins and minerals found in wheat.

1. Protein 3. Riboflavin 5. Iron
2. Thiamin 4. Niacin 6. Zinc

Mill

15. How is **gluten** used in baking?

Makes dough elastic

16. Why are **wheat germ** and **wheat germ oil** used in foods?

Improve flavor / Nutritional value

Growing & Exporting and Cover Crops

17. List 3 benefits of good cover crops.

1. *Reduce Erosion*
2. *Improved soil quality/health*
3. *Improved organic matter*
4. *Improved soil hydrology*
5. *Improved water quality*
6. *Minimize nutrient loss*
7. *Reduced production costs*
8. *Reduced weed/pest/disease pressure*
9. *Excellent forage/feed source*
10. *Improved profitability*

Wheat Timeline

18. When was wheat first planted in the U.S. as a hobby crop? 1777

Career Corner

19. According to Jim Schielein, is growing wheat more popular in Southern or Northern Illinois? Explain why?

*Southern.
The ability to grow wheat and soybeans in the same year (double cropping)*

20. List 2 things that can be done to increase wheat production in Illinois, according to cereal production manager, Ken Davis?

1. *Develop higher yielding varieties*
2. *Develop new technology*

Challenge!

21. A bushel of wheat weighs 60 pounds and yields 42 pounds of white flour OR 60 pounds of whole wheat flour. Two bushels of wheat would yield how many pounds of whole wheat flour?

120 pounds