

Hands-on Nutrition and STEM Activities for ages 4-8



Teacher Preparation: Buy one cup of wheat berries in the bulk grain section of the grocery store or online. Soak 1/2 cup wheat berries in water overnight; drain. Keep the other 1/2 cup dry.



You Will Need: paper plates, wheat berries (1/2 cup soaked, 1/2 cup dry), 1/2 cup whole wheat flour, rock, magnifiers (optional)

1. Give each team of 2-4 children a plate, 1/2 tsp soaked wheat berries, 1/2 tsp dry berries, 1/2 tsp flour, and a magnifier. Discuss: What do you notice about all these things on your plate? Observe how the berries and flour are different.
2. Predict what will happen if you crush the wheat berries. Put 2 Tbsp dry berries on a plate and pass it to the children's tables so that they can try crushing the berries with the rock. (Demonstrate how to crush the berry so that it doesn't fly off the plate.)
3. Compare the soaked wheat berries to the flour to the crushed berries to the whole wheat bread. Discuss the steps it takes to get from wheat growing in the ground on a farm to the bread you eat.
4. Continue to rinse the soaked wheat berries every day for 3 days and observe how they change.

Sing



Encourage children to act out the roles of the farmer, seed, sun and water as you sing.

*This is the way we plant the seeds,
plant the seeds,
plant the seeds,
This is the way we plant the seeds
so early in the morning.
This is the way we water the wheat (repeat each
verse as above)
This is the way the sun shines down
This is the way we pick the wheat
This is the way we grind the flour
This is the way we bake the bread
This is the way we eat the bread*

(Search for "Here we go round the mulberry bush" online for this tune.)

READ

The Little Red Hen by Diane Muldrow. Golden Books, 2001.
Bread Comes to Life: A Garden of Wheat and a Loaf to Eat by George Levenson. Tricycle Press, 2008.

Snacks for tasting: whole wheat bread with apple butter



- What changes about the wheat berries when they are wet?
- If you were going to make flour out of the berries, how would you do it?
- How do the berries look different after they are crushed?

DISCOVER

Wheat grows from seeds on a farm, just like vegetables do. When you soften wheat berries in water and keep them damp, they will sprout. You can see their tiny white roots and stems. Flour is made by grinding wheat berries. Before we had factories, this was done by rubbing the grains between two stones. Wheat is a grain -- an important part of MyPlate, the guide for helping children make healthy food choices. Children need a colorful diet of fruits, vegetables, grains, protein, and dairy/dairy substitutes to grow up healthy.