

Child Nutrition & Wellness
Kansas State Department of Education
Presents



Grains Galore
Lesson Plan

This class was developed by Child Nutrition & Wellness, Kansas State Department of Education. Class content and activities were adapted from the following sources:

- *Facts About Kansas Wheat*, Kansas Wheat, www.kansaswheat.org
- *Brown Rice Basics*, US Rice Federation
- *Oats*, Dictionary of American History | 2003 | Encyclopedia.com
- *Fun Facts About Corn*, Stumblerz.com, 3-17-2009
- GrainChain.com
- *Go With Whole Grains for Kids*, Bell Institute of Health and Nutrition, General Mills,
- USDA/FNS, *Whole Grains: Tips and Guidance for Moms (4-19-12)*
- TeamNutrition.usda.gov, *Recipes for Healthy Kids Cookbook for Homes*

This publication has been funded at least in part with Federal funds from the U.S. Department of Agriculture, Food and Nutrition Service. The contents of this publication do not necessarily reflect the views or policies of the Department, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.



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Whole Grains Galore

Learn It Live It Lesson Plan

Objective: Children will recognize different types of grains and cereals and will practice the sequence of growing grains.

Supplies:

- United States Map
- World Map or Globe
- 7 small (1/2 cup) clear plastic containers with lids.
- ½ cup each:
 - Whole wheat flour
 - Whole wheat cereal
 - Brown rice
 - Old fashioned oats
 - Cheerios
 - Popcorn
 - Cornmeal
- Pictures of wheat, rice, oats and corn plants.
- Growing sequence large pictures.
- Growing sequence cards – set for each child (or pairs of children)
- Whole grain cold cereal for taste test samples.

Listen and Learn Activity - Facts About Grains:

Wheat:

- Show a picture of wheat stalk.
- Say: Kansas, the state where we live grows more wheat than any other state in the country. Kansas has 20,000 farmers that grow wheat. All the wheat grown in Kansas in a single year would fit in a train stretching half way across the country.
- Show a map of the United States and point out Kansas.
- Say: Wheat is ground or milled into flour that is then made into bread and cereal.
- Show:
 - One clear container of whole wheat flour.
 - One clear container of whole wheat cereal (wheat chex)

Rice:

- Show a picture of rice plant.
- Say: More than six billion people around the world eat rice every day. Rice is the most common type of grain in the world. Most rice is grown in countries in south Asia and India.
- Show a world map and point out China, countries in south Asia and India.
- Say: Rice is a grass that looks like a weed. Rice is grown in places where it rains and floods often. Rice needs a lot of water to grow.
- Say: Rice can be cooked for breakfast as a cereal or cooked for dinner to eat with other foods. Rice can also be ground and made into flour and cold cereals.
- Show:
 - One clear container of brown rice.

Oats:

- Show a picture of oats stalk.
- Say: Oats come from a type of grass that grew wild on its own a long time ago. Oats were first grown in Europe to feed horses. Now oats are grown to feed people.
- Show: A world map and point out Europe.
- Say: Oats are steamed and flattened to make rolled oats for oatmeal. Oats are used to make many kinds of breakfast cereal.
- Show:
 - One clear container of old-fashioned oats.
 - One clear container of Cheerios.

Corn:

- Show a picture of corn ear.
- Say: Corn is grown in every place in the world that is not covered with snow and ice. Corn was first grown by Native Americans in the country now called Mexico
- Show a world map and point out Mexico.
- Say: More corn is grown than any other grain. More than half the corn for the whole world is grown in the United States.
- Say: Corn grows as ears or kernels that have grains of corn in rows.
- Say: Corn is made into popcorn and also ground into corn meal.
- Show:
 - One clear container of popcorn
 - One clear container of cornmeal

Talking Points:

- Say: Grains are grown all over the world. Half the grains we eat should come from whole grains.

Hands-On Activity – How Grain Grows

(Adapted from GrainChain.com)

- Use growing grains large pictures to tell the story of growing grain.
- Have children arrange growing grains small cards in the growing sequence.

Hands and Feet Physical Activity – Taking Grains to the Mill

- Divide children into four groups – wheat – rice – oats – corn.
- Direct students to stand in a horizontal line at the end of a play area (with room to jump and run).
- Call out the name of a group and then call out movement direction.
 - Example:
 - “oats” jump up and down 10 times
 - “wheat” run in a circle 10 times
 - “rice” do 10 jumping jacks
 - “corn” take 10 bunny hops forward
- Repeat giving each grain group different movement activities for as long as you wish.
- Call out “All grains to the mill” – all children run to the end of the play area and back.

(Adapted from: Go With Whole Grains for Kids)

Try and New Taste Activity

- Provide each child with a soufflé cup of 5-10 pieces of 2-3 types of whole grain cereal to taste.

Take Home Message

Adapting the Lesson Plan for CACFP Adults

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- World Map or Globe
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- ½ cup each:
 - Whole wheat flour
 - Whole wheat cereal
 - Brown rice
 - Old fashioned oats
 - Cheerios
 - Popcorn
 - Cornmeal
- Pictures of wheat, rice, oats and corn plants.
- Grain Mosaic supplies:
 - Sheets of 8x11 poster board and glue
 - 2-3 tablespoons of grains to sprinkle on glue
 - Brown rice
 - White rice
 - Popcorn kernels
 - Cheerios
- Whole grain cold cereal for taste test samples.

Listen and Learn Activity - Facts About Grains:

- As each type of grain is discussed, ask participants who farmed as a career to share their experiences of growing grains. Ask participants to share their experience of grain products prepared for their families.

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If computer and projector are available, show the video on how flaked cereal and granola bars are made at link below.

<https://www.youtube.com/watch?v=-DtpYcxnS4M&feature=related>

Hands-On Activity: Grain Mosaic

- Provide each participant with small amounts of brown rice, white rice, popcorn, cheerios, a piece of poster board and glue.
- Encourage participants to spread glue on their piece of poster board and sprinkle on grains and cereals in a design to make a grain mosaic.

Take Home Message

Wheat



Corn



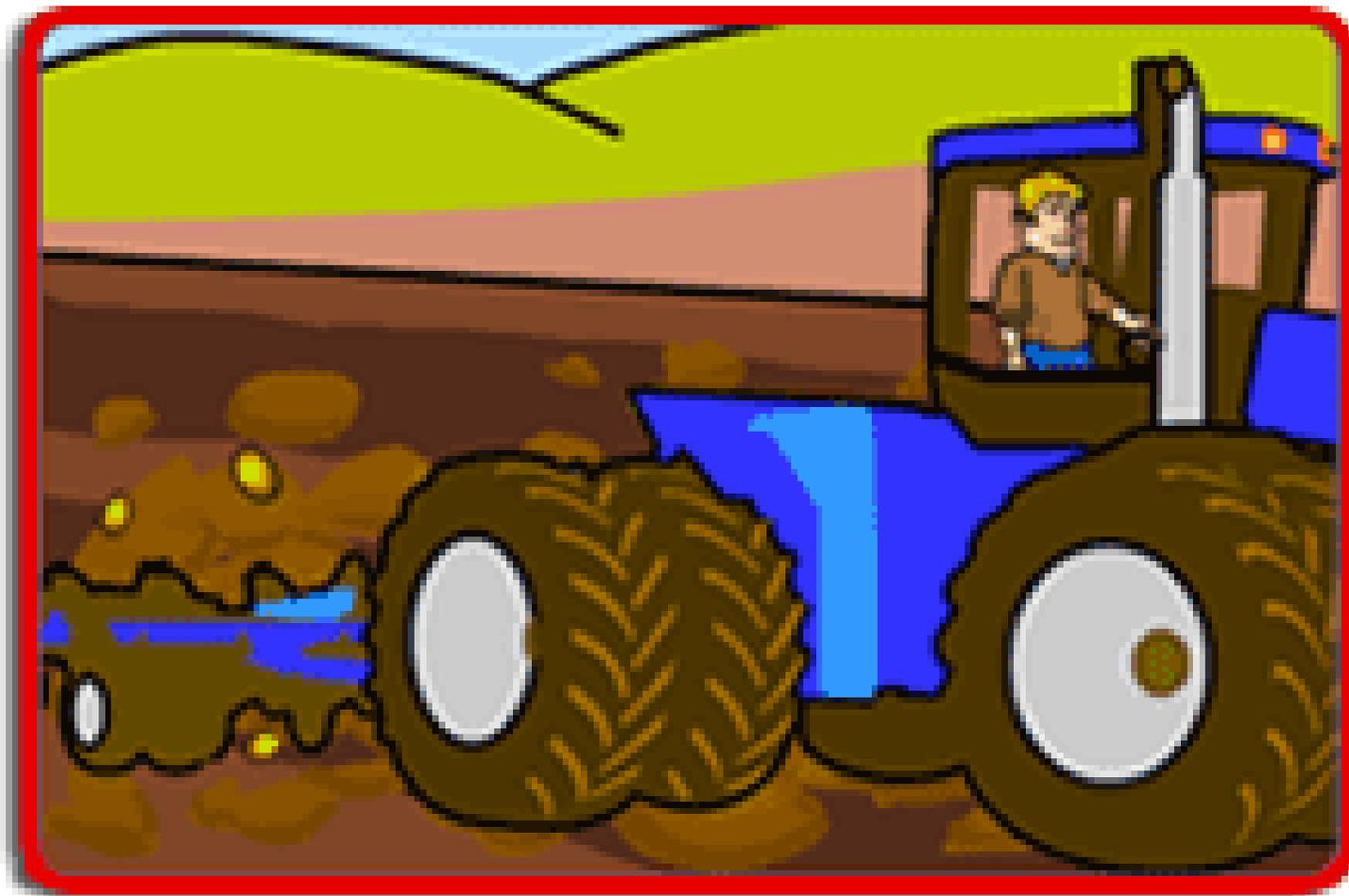
Oats



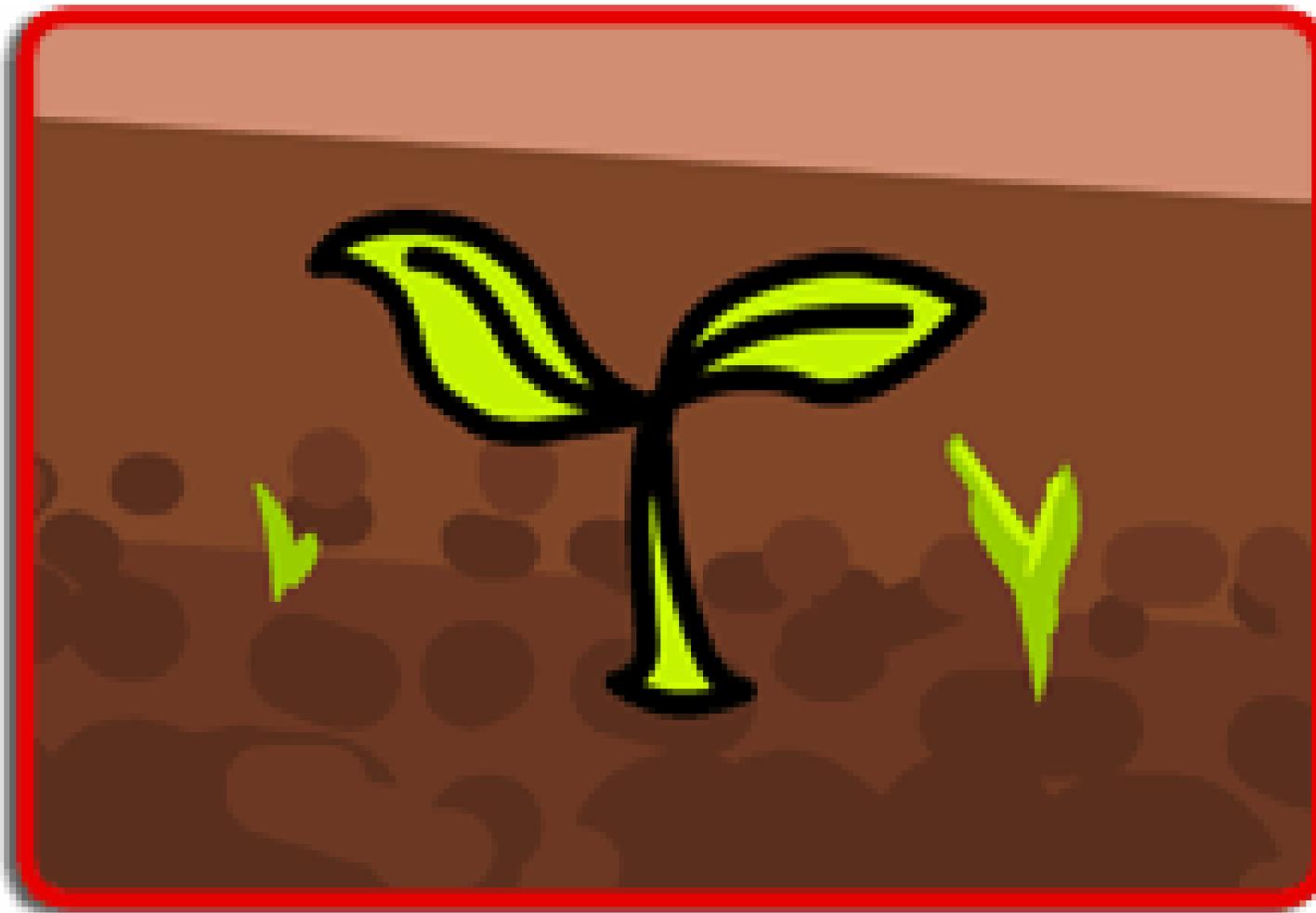
Rice



A farmer plants grain seeds.



Seeds grow in the soil



The rain gives the seeds water to drink.



The seeds need sunshine to grow.



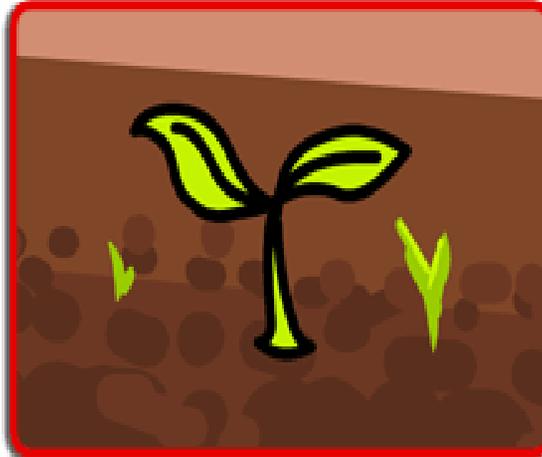
The seed grows into a plant.



The farmer harvests the grain and takes it to the mill.



Growing Sequence Cards



Whole Grains Take Home Message (For Child Care)

Dear Parents,

Today we learned where wheat, rice, oats and corn are grown. We learned how plants start out as seeds and become many different kinds of whole grain products. We tasted whole grain cereals today. **Cold whole grain cereal makes a great quick breakfast and a crunchy snack. Whole grain cereals can also be crushed and used as breading for chicken or fish or toppings for casseroles.**

Brown Rice Basics

Tips for Cooking with Brown Rice

All white rice starts off as brown. Brown rice retains the nutrient-dense bran and inner germ layer as well as the starchy endosperm. It is the bran coating that gives brown rice a light tan color, nutty flavor and chewy texture.

Buying Brown Rice: Brown rice contains healthy natural oils in the germ and has a shorter shelf-life than refined white rice. The shelf-life for brown rice is about six months. The shelf-life can be extended by storing rice in the refrigerator.

Cooking Brown Rice: Brown rice takes longer to cook than white rice, about 45 minutes compared to 15-20 minutes for white rice. There are a variety of instant brown rice and rice mixes available that can be cooked or microwaved in just a few minutes. Brown rice can be cooked ahead and reheated in individual servings by microwaving about 60 seconds.

Storing Cooked Rice: Uneaten, cooked, brown rice should be cooked quickly. To store cooked rice, place in a shallow container, cover and store in the refrigerator. Cooked rice may be stored in the refrigerator up to seven days. Cooked frozen rice can be stored in the freezer for six months.

Adding Brown Rice to Meals for Kids

- Cook and serve brown rice as a hot breakfast cereal with dried fruit, cinnamon, milk and a little sugar or honey.
- Pair brown rice with black beans, shredded chicken and cheese to make a burrito. Increase whole grains even more by using a whole grain tortilla.
- Cook brown rice in low sodium broth and add chopped vegetables to make a pilaf side dish.
- Use cooked brown rice as a healthy filler in meatloaf and burgers.
- Substitute brown rice for white rice in stir-fry dishes or use a half brown and half white rice.
- Create a quick meal rice bowl by topping reheated brown rice with steamed vegetables and lean cooked meat, poultry or fish.
- Make a quick mock rice pudding by combining ½ cup cooked brown rice with ½ cup of low-fat yogurt.

Stir-Fried Green Rice, Eggs, and Ham (Turkey Ham)

TeamNutrition.usda.gov
Recipes for Healthy Kids Cookbook for Homes
(makes 6 1-cup servings)

Ingredients:

1 $\frac{3}{4}$ cups Brown rice, long-grain, regular, dry
 $\frac{1}{2}$ tsp Salt
 $\frac{3}{4}$ cup Frozen chopped spinach, thawed, drained
5 large Whole eggs, beaten
1 Tbsp Vegetable oil
 $\frac{1}{2}$ cup Extra-lean turkey ham, diced $\frac{1}{4}$ " (2 oz)
 $\frac{1}{4}$ cup Fresh green onions, diced
1 tsp Sesame oil
1 tsp Low-sodium soy sauce

Directions:

1. Combine brown rice and 4 $\frac{1}{2}$ cups water in a large pot and bring to a boil. Turn heat down to low. Cover and cook until water is absorbed, about 30-40 minutes. Fluff with a fork. Add salt to rice. Mix well. Set aside. A rice cooker may be used with the same quantity of brown rice and water.
2. Drain water from spinach by squeezing thawed spinach with hands. Set aside.
3. Whisk together eggs and 1 Tbsp water.
4. Cook half of the eggs in a large nonstick skillet coated with nonstick cooking spray. Remove eggs from skillet to cool. Chop cooled eggs and set aside. Reserve the remaining eggs for step 6.
5. Heat vegetable oil in a wok or a large nonstick skillet over high heat. Add ham and cook for 2 minutes or until ham begins to brown.
6. Reduce heat to medium. Add brown rice and toss to mix. Add remaining eggs. Stir for 5 minutes or until egg is fully cooked.
7. Add green onions, spinach, chopped egg, sesame oil, and soy sauce. Stir well. Cook until thoroughly heated. Serve hot.

Whole Grains Take Home Message (For Adult Care)

Cold whole grain cereal makes a great quick breakfast and a crunchy snack. Whole grain cereals can also be crushed and used as breading for chicken or fish or toppings for casseroles.

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