Cooking Notes

Food assembly has long been a part of early childhood curriculum. There are many examples of how mathematics is embedded in preparation of ants on a log, or sandwiches.

What is often overlooked is the STEM within actually cooking experiences. As children make their own servings of pudding, pancakes, muffins, quesadillas, eggs, or play dough, they engage in vocabulary that often has multiple meanings. In cooking we whip, beat, sift, dice…all words that have different meanings in different contexts. There is mathematical thinking such as of more and less, shorter and longer in terms of time, number of scoops or spoonful's and experiences connecting children to the concepts of volume and fractions.

Cooking experiences can introduce cultural dishes previously unknown to children, or regularly enjoyed. Finally, cooking experiences immerse children in observations about properties of materials or ingredients, and how those properties may change when heat or cooling is applied to a mixture.

French Toast in a Mug is a recipe adapted from the August 2019 issue of Hy-Vee's Seasons Magazine. A video of Hy-Vee nutritionist April Van Sickle Graff cooking this recipe with her daughter can be found on the Facebook page of **Hy-Vee (2010 Adams St, Mankato, MN)**. We adapted the recipe calling the measurement of Tablespoon a "big spoon", the ½ teaspoon a "little spoon", and the ¼ teaspoon a "tiny spoon." Seriation of sizes matches the development of math with preschoolers and kindergarten. When children are in first, second, or third grade, they can begin to make sense of standard units of measurement.

Tips in cooking with young learners:
Read the recipe together before you make it.

Point to the words as you read. Point to the names of the ingredients on their containers.

Put the measuring utensils on a jelly roll pan or tray to catch spills and for easy clean up.

Resist handing them the correct measuring spoon to them. Instead, ask them, "Which do you think is the big spoon? The little spoon? The tiny spoon?" (If they are older children, ask them, "Which do you think is the Tablespoon? The ½ teaspoon? The ¼ teaspoon?)

Resist cracking the egg for them. Model cracking one and then let them try. While the French Toast is in the microwave, examine the shells of the egg with them. What do they notice on the outside? The inside? (They may notice pores in the outer shell, and the shell membrane on this inside. Close observers may notice a little pocket of air between the membrane and shell on the round end of the egg.) If they are interested in these parts, you may want to read some books on hatching chicks.

It may be easier to mix the ingredients in a small bowl instead of mixing it in the mug, then transfer the mixture into the mug.

You will need to adapt the time to cook the French Toast to fit your microwave as well as the sequence to start the microwave. Have a pair of child-sized gloves ready for your young learner to handle the mug after it finishes cooking. It will be hot. Make sure it cools well before eating. Talk about how the mixture has changed after it cooks.

Let young learners make the same recipe many times over allowing them to make changes. The differences in the size of slices of bread will pose some engineering challenges. Record their own personal versions of this recipe.

French Toast in a Mug

Here is what you need:

Tablespoon
½ teaspoon
¼ teaspoon

large glass mug

egg

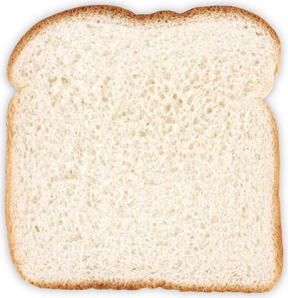
milk

non-stick cooking spray

maple syrup

salt

vanilla



bread

ground cinnamon

fork

microwave

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French Toast in a Mug

Spray inside of mug.

Crack 1 egg into the mug.

Put 2 big spoons of maple syrup into the mug.

Put 2 big spoons of milk into the mug.

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Put 1 small spoon of cinnamon into the mug.

Put 1 tiny spoon of vanilla into the mug.

1 shake of salt into the mug.

Beat together.

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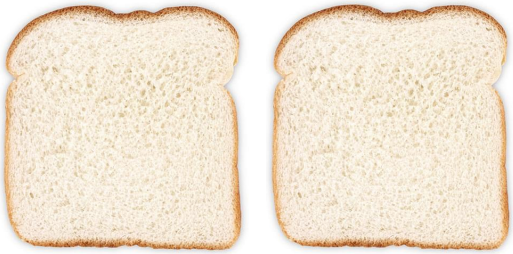
Tear up 2 slices of bread and put into the mug.



Stir.

Put mug into the microwave.

Press Cook, 90, START.

Let cool while you sing three songs.
Eat!

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