# Agriculture in Education:

#  an educational resource for the Year 3-4 Design and Technology Curriculum

# Learning Resource 3: Get Your Hands on my Food

**Station Cards - Student**

# Sugar Station

Procedure:

1.Choose a speaker for your group and someone to read the instructions.

2. Reflect

 Where does sugar come from?

 What foods contain added sugar?

 Is there added sugar in less obvious foods? Name some examples.

 Can you name some different types of sugar?

3. Your food bag—inquiry and hands-on activity

 Place the different sugars on the plate provided - touch, view and smell the samples.

 See if you can name the different types - brown sugar, raw sugar, white sugar, caster sugar.

 Using the spoons provide taste a small sample of each sugar.

 Discuss with your group about the different taste and appearance of the sugars and why there is different types of sugar. What is the difference between white sugar and caster sugar? How different is the unrefined sugar?

 When you have done the above activities, let your teacher know and you can refine your sugar further.

 When you have the icing sugar, taste and touch it.

Carefully add 1 teaspoon of water to the icing sugar and slowly stir. You may need to add a little more water, but be careful as you do not want it to become too runny. What have you made?

 4. Reflect

 What did you learn about sugar today?

*\*Don’t’ forget to complete your Reflection handout.*

# Dairy Station

Procedure:

1. Choose a speaker for your group and someone to read instructions.

2. Reflect:

 What do you know about dairy? Where does dairy food come from?

 What products are made from dairy? What is the difference between margarine and butter?

 What are the process necessary to get milk from an animal to your home?

3. Farm to Factory / Plate to Paddock: Place the Paddock to Plate cards in the correct sequential order.

4. Your food bag—inquiry and hands-on activity

Making Butter:

Take the jar out of the bag (ensure it has cream in it) turns shaking it vigorously. Watch carefully the different steps of transformation—what is happening? Why? How? What have you made? What is your group’s reaction?

\*Do not open your jar until a teacher has checked.

Take your plastic cup and strainer out of the bag—put the strainer on top of the cup and pour in the butter milk and let the ball of butter strain on top.

Place the butter on the plate provided and take a utensil each and taste the butter—what does it taste like? What does it look like? Is it like the butter you eat normally? What could you do to make it look more edible?

Now, put some butter on the salted crackers provided—what do you think of the taste now?

How else could you use butter? Where would you store the butter?

5. Reflect: What did you learn about dairy today?

# Egg Station

# Procedure:

1. Choose a speaker for your group and someone to read instructions.

2. Reflect:

 What do you know about eggs? What are some of the ways we eat and use eggs?

 What other foods do we find eggs in? What are the parts of an egg?

 What is the difference between caged eggs, barn-laid eggs and free range eggs?

 Why do you think people care?

3. Farm to Factory / Plate to Paddock:

 Place the Paddock to Plate cards in the correct sequential order.

4. Your Food Bag—inquiry and hands on activity

Strength, Quality and Freshness:

* + - Do you know how to tell if an egg is fresh? Carefully take an egg out of the carton and take turns in gently shaking it close to your ear—can you hear any liquid moving? Should you? Why or why not?
		- Gently place the egg in a bowl of water, does it sink or float? Do you know why a fresh egg should sink? Look at the diagram of the egg and consider.
		- How strong is your egg—if you squeeze it will the egg break? Wrap the egg in the cling wrap provided, place it in the palm of your hand so your weight is distributed evenly and fingers wrapped completely around the egg. Squeeze as hard as you can. Does it break? Why not? What is your reaction to this?

 Make sure everyone in your group has a turn.

Quality testing:

 Carefully, crack each egg into a plate—try not to break the yoke.

If you have one a magnifying glass share to inspect the eggs. What do you see? Try and identify the parts as shown in your diagram—the albumen (egg white), the air cell, the yoke, the chalaza cord etc. Gently touch the yolk and feel the albumen, are they firm and springy or soft and runny? What should a fresh egg be like?

Do the eggs smell fresh?

5. Reflect: What did you learn about eggs today?

# Orange Station

Procedure:

1. Choose a speaker for your group and someone to read instructions.

2. Reflect: What do you know about oranges? What are some different products made using oranges? How do oranges grow? Are there different types of oranges? Are oranges we eat grown and old in Australia? Why or why not?

3. Farm to Factory / Plate to Paddock: Place the Paddock to Plate cards in the correct sequential order.

4. Your Food Bag – inquiry and hands on activity

 Can you name the orange/s?

 Look at the orange/s supplied– what do they feel like? Are there any distinguishing features?

5. Making Orange Juice:

* Weigh the orange/s on the scale provided and record the result on a worksheet
* Weigh the jug and record the result.
* Using the juicer squeeze as much juice as you can, pour into the jug and weigh. Don’t forget to minus the weight of the empty jug to find out how much juice you have in total.
* If there is one thousand milliliters in 1 litre how many oranges do you estimate would be needed for a litre of juice?
* Calculate the percentage of juice obtained from each orange by divided the weight of the juice by the weight of the orange and multiplying by one hundred. Juice divided by orange equal percent of juice. The minimum standard of juice is thirty three percent was your orange more or less? Why do you think this was the case?

6. Drink:

Drink you juice, what is it like?
Why do you think some manufacturers add sugar?
Taste the pulp and other parts of the orange? What do they taste like?

7. Reflect: What did you learn about oranges today?

# Orange Station

Making orange juice worksheet:

*This sheet will help your group record its calculations*

Weight of your orange?

Weight of your jug?

Weight of juice from your orange? (don’t forget to minus the weight of the jug!)

How many oranges would you need to make a litre?
(one thousand mililitres equals one litre)

What is the percentage of juice in your orange?

\_\_\_\_\_\_\_\_\_\_\_\_\_ divide \_\_\_\_\_\_\_\_\_\_\_\_\_\_ times one hundred equal \_\_\_\_\_\_\_\_\_\_\_ percent
weight of juice weight of orange

# Grains Station

Procedure:

1. Choose a speaker for your group and someone to read instructions.

2. Reflect: What do you know about grains?
 What are the main types of foods made from grains?
 How many different types of grains can you name? Is rice a grain?

3. Farm to Factory / Plate to Paddock: Place the Paddock to Plate cards in the correct sequential order.

4. Your Food Bag – inquiry and hands on activity

In your Food Bag you will find different types of grains. Place a spoonful of each on the plate provided. As a group touch them, examine the grains, smell them and taste them . Try to pull of the husk/outside to find the grain inside. What do the grains taste like? How do you think the grains become products like flour, oil and rolled oats?

5. Making Flour, Oil and rolled oats:

Pour half of your wheat grain into the mortar and pestle.

Take turns in your group grinding the grains. What is happening? What are you making?

Feel your work and taste. If the grains aren’t smashing see if your teacher has a secret weapon! What have you made? What does it look like? Taste like? Could this make a loaf of bread?

6. Repeat the same process with the canola grains. Could you make oil? Why or why not? What colour are the smashed canola grains? What do they taste like?

7. While the other members of your use the mortar pestle, other group members should investigate the rolled oats more. Take of the husk an oat then using the rolling pin rolled it with all our strength. It should flatten. What does it look like? Taste it, does it remind you of porridge?

8. Reflect: What did you learn about grains today?

# Grains Station

### Parts of the wheat grain:

Each grain of wheat has three distinct parts. First there is the coarse outer bran layer. Inside the bran layer there are two parts. The smaller part is called the germ – a new plant would grow from this part. The larger part is called the endosperm. This is the starchy store of food which the germ feeds on while it grows.

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