



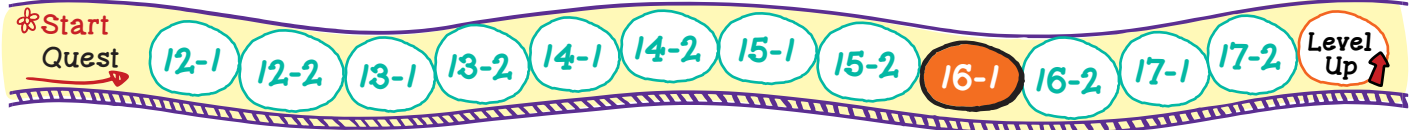
food heroes

Challenge 16: Dish Out the Truth

Quest 3 of 3: Save Our World



Dish Out The Truth



Introduction

Let kids delve into the journeys their food goes through with the “Dish Out the Truth” challenge!

Children will learn about the environmental impacts of vegetables and meat with the Farm to Fork Flashcards.

Lesson Objectives

- ★ Review that eating vegetables and grains consumes less energy than meat.
- ★ Students will compare and contrast the production of vegetables vs. meat.
- ★ Students will sequence a food’s journey from farm to table.

You Will Need...

- | | | | |
|-----------------|---------------------|------------------------------|-----------------|
| ★ Food Journal* | 1 sheet per student | ★ Rainbow coloring supplies* | |
| ★ Worksheet* | 1 sheet per student | ★ Farm-to-Fork Flashcards | 1 set per group |

*Additional preparation needed

Lesson Plan

Class Warm Up

Discussion Question:

We've already learned how food grows, but what happens once it is grown on the farm? How does it reach our plates?

Vocabulary Preview

1. **Energy** - The power to do something
2. **Plankton** - Small plants or animals that float on the surface of the ocean
3. **Refrigerate** - To make something cold so it doesn't go bad or spoil

Class Story

Today, the Food Heroes are brainstorming ideas to continue their quest to Save the World. "My parents buy meat and seafood sometimes" says Jade, "And they'll ask me: 'why is this so bad? Why is it harmful?'"

"Well, I guess we need to find an answer!" replies Terra. "Recruiting people to be Food Heroes might be the most important part of our mission! Especially our parents."

"Hmm," says Kai. "We've already learned about which foods to choose—Superboost and some Sidekick foods. So how do we help other people make these choices too? How do we recruit people to do good for their body and good for the world?"

Jade nods and says, "We need to teach people the truth about their food—that it doesn't just come from the grocery shelves! When you grow up on a farm, you understand the true process and cost of growing food."

Helpful Hints

Get the class warmed up for this lesson by asking a discussion question.

I wish I might.
I wish I might,
change the world
with every bite.



“Yes, you’re right,” replies Clay. “It can come from the dirt or the trees like we learned in the first quest. Or it can come from the oceans, like we learned just now with Sage!”

“But Clay, how does it get from those fields or those boats to the grocery store? We need to learn those steps in between. I must get to the bottom of this,” says Kai.

“I’ll try to explain it all to you!” offers Jade. “But, I don’t think I can do it all by myself. Sage told us to go find the answers to our questions. So, why don’t we invite Farmer Glen to help explain the whole process.”

Everyone agrees and Jade calls up Farmer Glen who is happy to help.

“Thanks for coming friends! I can explain how a simple plant like broccoli grows from a seed to being cooked on our plates,” says Jade.

“Thanks for inviting me Food Heroes!” replies Farmer Glen. “And I can help explain how fish go from egg to plate and are fished in the sea. This is a great idea to teach people how food ends up in the grocery store! How about I explain the food that requires the most energy, time, and effort to produce—meat. There is a cattle farm next to my place, so I know the process.”

“That’s perfect! Well, I guess I’ll start with the broccoli then. Let’s begin!” Jade says.

Mini-Lesson

Food Journeys:

Ask the class to guess which type of food takes the most energy, time, and effort to get from the farm to our plates. Compare broccoli to fish or beef.

Read these three stories about how our food gets to us. Use the Farm to Fork Flashcards to illustrate.

Broccoli

At the end of summer, the farmer plants the seed and grows the broccoli with a lot of care and love.

The farmer harvests the broccoli when they are fully grown.

The workers ship the broccoli to the grocery store in large boxes in a delivery truck.

**Every part of nature
can be reborn!**



We buy the broccoli, cook it, and eat it.

Fish

The fish hatch from eggs in the ocean.

The baby fish grow big in the ocean by eating small sea plants called plankton.

The fishermen catch fish, store them on refrigerated ships, and bring them to shore. Some of the nets that are made of plastic are left in the ocean, contributing to ocean pollution like what we learned about before!

The workers package and drive the fish to grocery stores in refrigerated trucks so that the fish don't go bad.

We buy the fish, cook it, and eat it.

Beef

Baby calves are born on a farm living together in a small space - sometimes getting sick because they aren't allowed to leave the barn and are living too close to other cows.

The farmers feed the cow food and medicine so they grow fat.

They are taken from the barn to a meat factory by truck. The workers kill and package the cow in the factory.

The workers refrigerate the meat and ship it to grocery stores.

We buy the meat, cook it, and eat it.



Class Activity

Food Journey Flashcards:

Using the Farm to Fork posters, ask students to put the flashcards in order of the food's journey from start to finish.

There are flash cards for each food: broccoli, fish, and beef. They may do this in groups or individually.

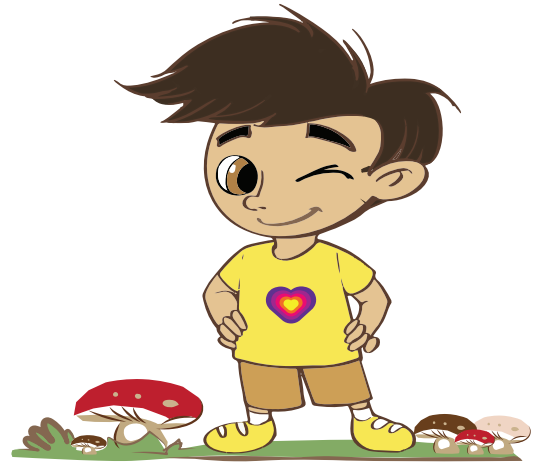
Worksheet

On the “Food Journey” worksheet, number the steps of the food journey for broccoli and red meat. Use a different color for each food.

At-Home Activity

On the “Food Journey” homework sheet, you have to number the steps of the food journeys of apple and fish.

Complete a Food Journal.

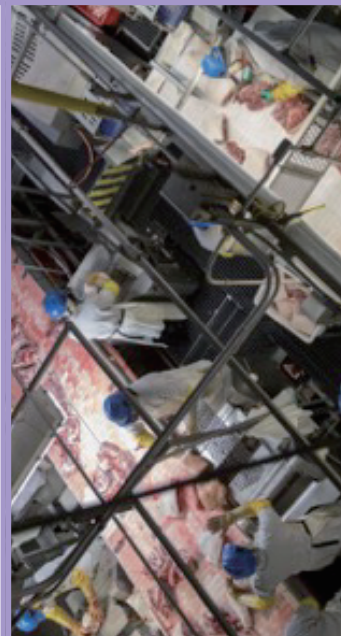




The baby calves are born and separated from their mothers.



The farmer feeds the cows, so they grow fat.



The workers kill and package the cow in the factory.



The workers ship the meat to the grocery store.



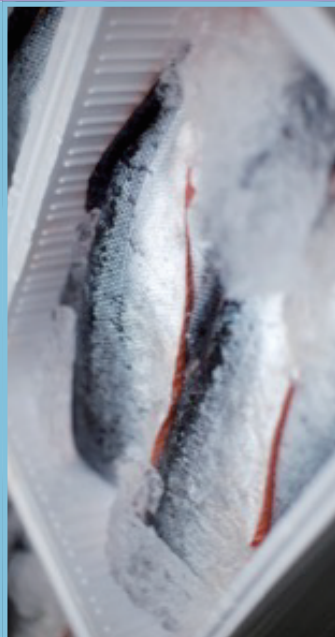
We buy the meat, cook it, and eat it.



The fish hatch from eggs in the ocean.



The fish grow big in the ocean.



The workers package and ship the fish to the grocery store.



Fishermen catch the fish and bring them to shore.





We buy the fish, cook it, and eat it.



The farmer plants the seed
and grows the broccoli.



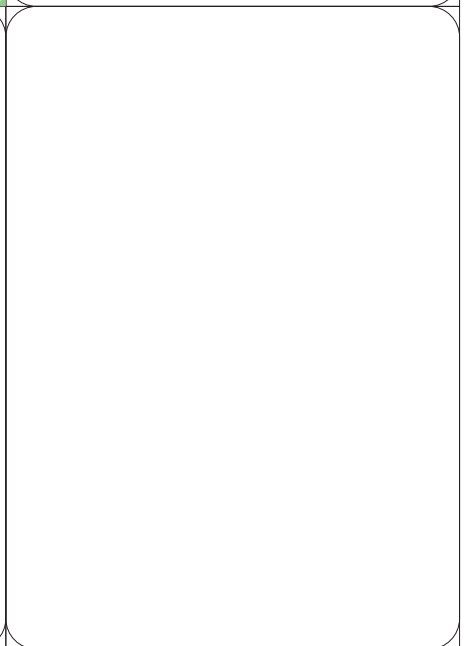
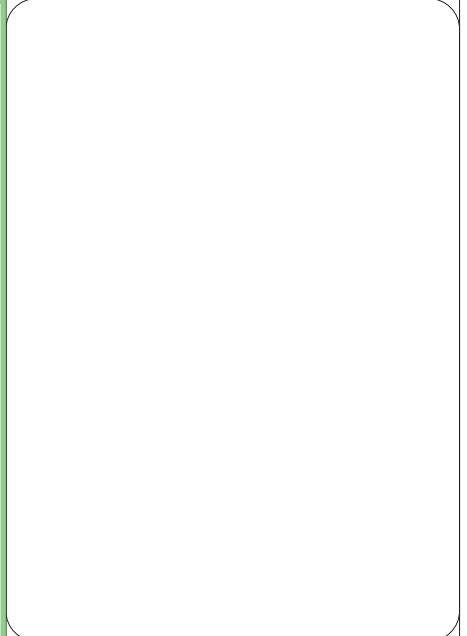
The farmer harvests the broccoli.

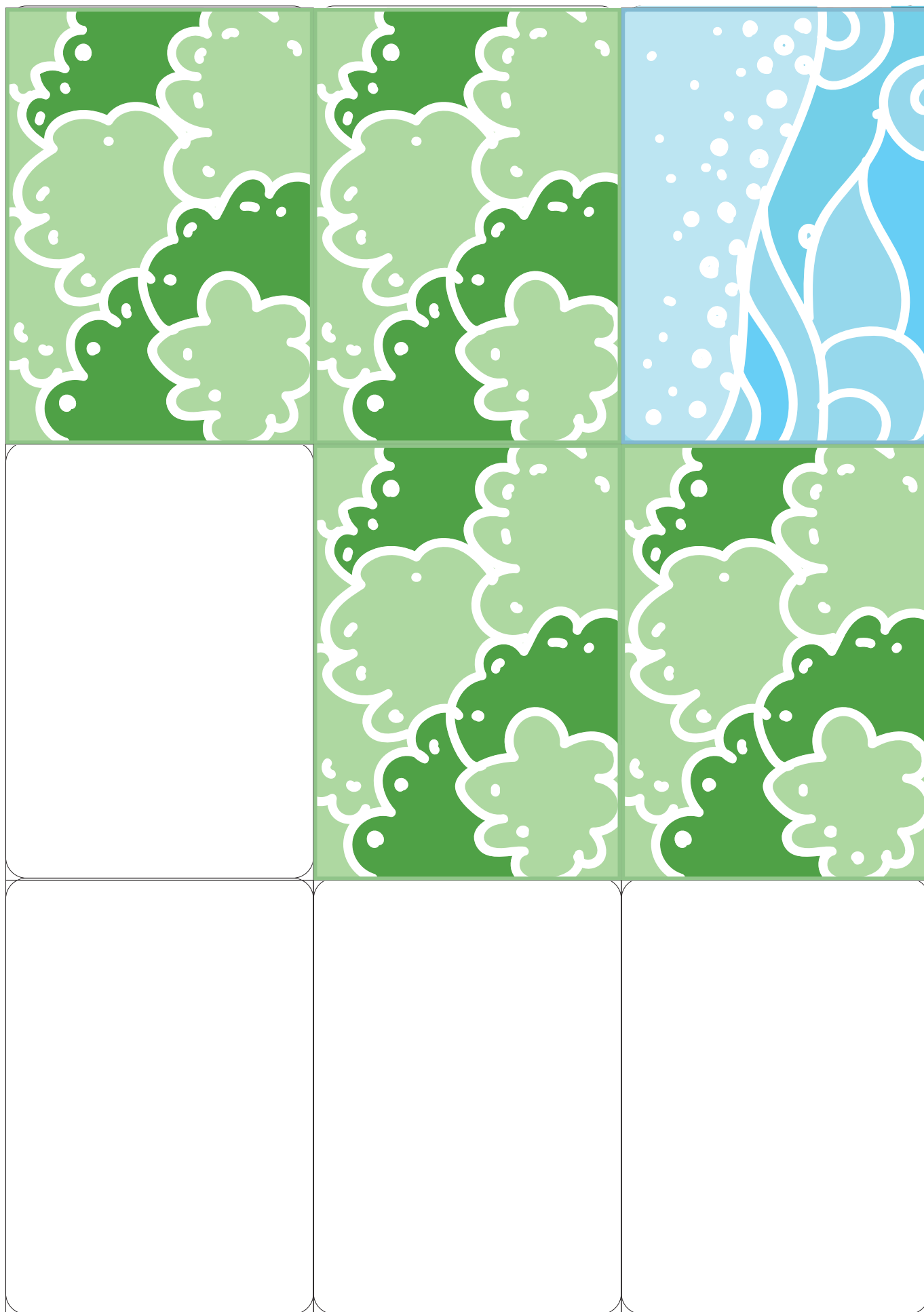


The workers ship the broccoli
to the grocery store.



We buy the broccoli,
cook it, and eat it.





Activity

Name: _____

The images below each represent a different step in the food's journey to your plate. Number the pictures in the correct order.

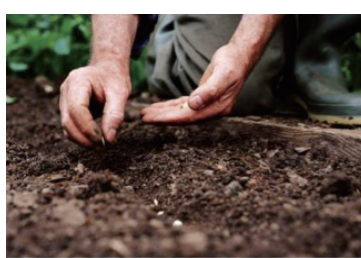
Beef

Broccoli

1



4











At-Home Mission

Name: _____

The images below each represent a different step in the food's journey to your plate. Number the pictures in the correct order.

Fish



Apple

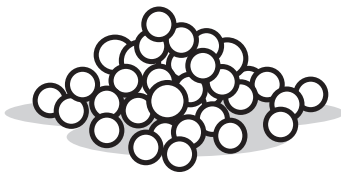


Parent's Signature: _____

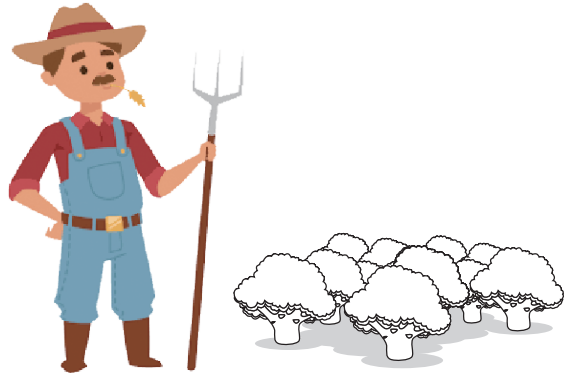
Color the Life Cycle!

How does broccoli go from a farm to our plate?

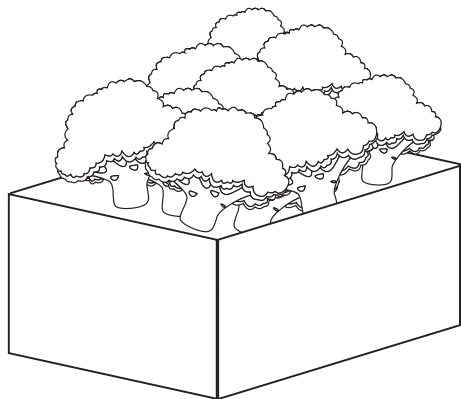
To grow, we need:



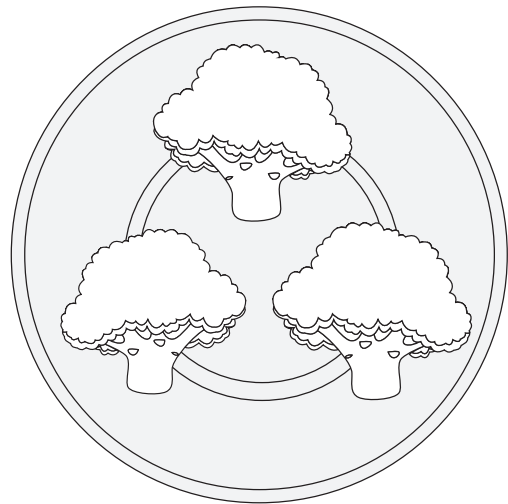
Broccoli seeds are planted and grown.



The farmer harvests the crop.

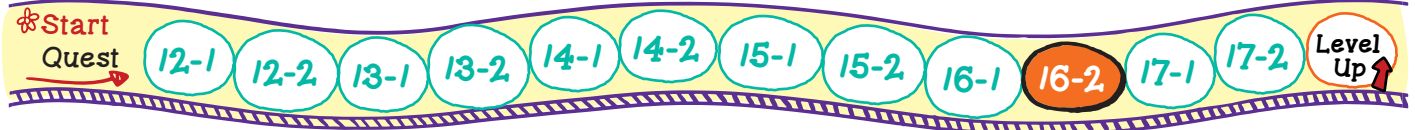


Broccoli are shipped to grocery stores.



We buy the broccoli and eat it.

Dish Out The Truth



Introduction

Let kids delve into the journeys their food goes through with the “Dish Out the Truth” challenge!

Children will discover the link between water usage and the food we eat with Water Usage Slips.

Lesson Objectives

- ★ Students will know what a water footprint is.
- ★ Students will rank foods in order of lowest to greatest water usage.

You Will Need...

★ Food Journal*	1 sheet per student	★ Water Usage Paper Slips*	
★ Worksheet*	1 sheet per student	★ Buckets*	4
★ Rainbow coloring supplies*		★ 6-8 oz. cup*	1
★ Water Usage Poster*	1 per student		

*Additional preparation needed

Lesson Plan

Class Warm Up

Review:

Review the food journeys of broccoli, meat and fish go through in order to get to us.

Discussion Question:

What do you use water for?

Vocabulary Preview

1. **Resource** - Things used to make or do something
2. **Contemplation** - Thoughtful observation or deep consideration

Class Story

Welcome back to adventures with the Food Heroes! Last time, the Food Heroes brought in Farmer Glen for some help. They helped Jade explain the process of bringing food to our plates. Now, they are all sitting down to enjoy dinner together. As usual, Terra leads everyone in a contemplation before they eat.

“Thank you to our guest for teaching us about the true cost of the food on our plates! Now, we can really appreciate the long journey that this food took to arrive at our plates. Think about all the energy used, all the people who worked and...”

“And all the water that was used!” interrupts Ava.

“Hmm? What?” questions Clay. “Why are you thinking about the water that was used on this food?”

Helpful Hints

Get the class warmed up for this lesson by asking a discussion question.



“Well, not having enough water scares me,” explains Ava, “I think about how much water I drink and use everyday to do things like wash my hands and shower. But I also think about how much water it takes to grow these foods. Just think about the role that water takes in our lessons about being a poo detective, growing broccoli, raising healthy fish... water is involved in everything!” she says as she jumps up and down.

“Ava, I think that makes a lot of sense,” adds Kai. “Water is life, and without it, nothing would grow. Not even us!”

“Well you’re right then,” admits Jade. “We should include water in our gratefulness and think more about water. How does water connect everything we’ve learned? How much water goes into our food?” she asks.

“I have a Water Usage poster Farmer Glen gave me that shows just how much water each food needs to grow,” says Jade, pulling out a paper from her bag.

All the Food Heroes gather to see the poster and are shocked at how much water is used for each type of food.

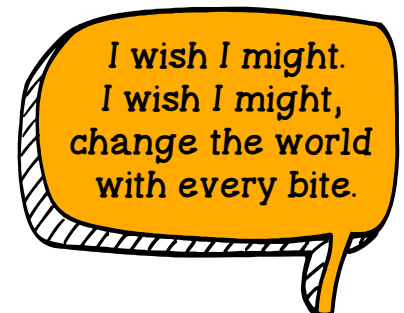
“I had no idea that steak takes 227 gallons of water per serving! Broccoli only takes 80 gallons!” says Kai.

“That’s wasting so much water, and water is precious!” seconds Clay.

“I am going to think a lot more about how much water and energy my food takes to produce,” says Jade.

Ava nods and adds, “If we really want to save the Earth, we should eat plant-based foods because they save water for the planet.”

“Well, I think we learned a lot during today’s contemplation,” says Terra. “From now on, we should think more about the water we use. So let’s raise a glass and take a big sip! Cheers!”



Mini-Lesson

A Closer Look at Water:

Discuss with the class how growing our food requires a lot of water, and different foods require different amounts of water. For instance, raising a chicken requires water for the chicken to drink but also water to grow the grain that the chicken eats, and water to keep the chicken meat cold when it is being transported. The water that goes into producing just one chicken breast is the equivalent to showering for 59 minutes! This is called a water footprint.

However, eating fruits, vegetables, and other plant foods, hopefully grown close to you, uses the much less water than meat.

Show the class the Water Usage posters and go through each food and its water usage. Emphasize on the poster that plant-based products are low water usage compared to processed food or meats.

Class Activity

Sustainable Foods:

Let's see how sustainable our food is!

Preparation: You will need the Water Usage Slips, 4 buckets and water, and 1 cup.

Put four buckets (two empty and two filled with water) in front of the class.


One bucket is the "Fruits and Vegetable Reservoir" filled with water. Beside it is its corresponding empty bucket.

The third bucket is the "Meat and Processed Foods Reservoir" filled with water. Beside it is its corresponding empty bucket.


Distribute a Water Usage Slip to each student.

Call on a student one by one, with a named food from the slip, and they must use the cup to pour the right amount of water from the reservoir bucket to the corresponding empty bucket, depending on how much cups of water it takes for the food to be produced.

When all the water has been transferred, have students visualize how much water fruits and vegetables use, versus livestock.



Fill up two buckets with water before class. The other buckets should be empty.



Keep track of how many slips from the "Fruits and Vegetables" versus "Meat and Processed Foods" category students pick. This will affect which "Reservoir" bucket empties first.

Worksheet

On the “Water Usage” worksheet, color in the water droplets associated with each food. The size of the water droplets indicates how much water is needed to grow the food. Then circle the food that uses the least amount of water and cross out the food that uses the most.

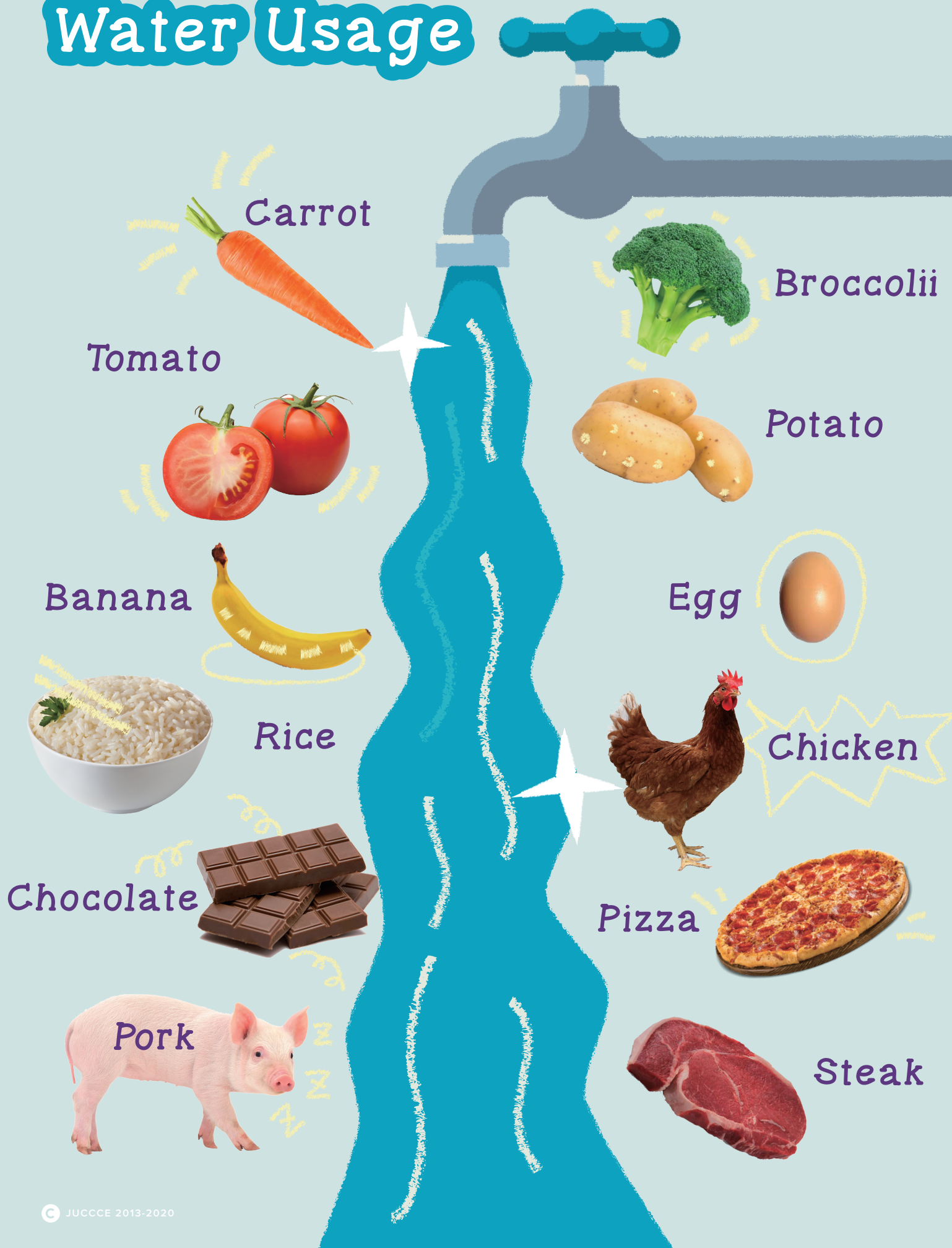
At-Home Activity

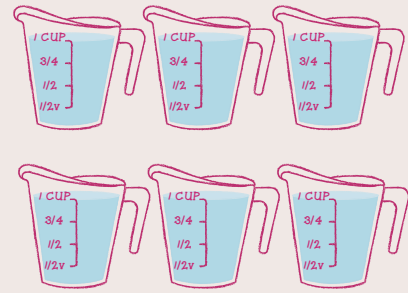
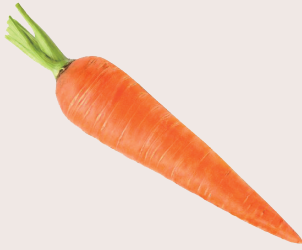
Distribute a “Water Usage” poster to every student to have in the kitchen at home in order to teach their parents.

Complete a Food Journal.



Water Usage



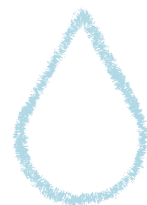
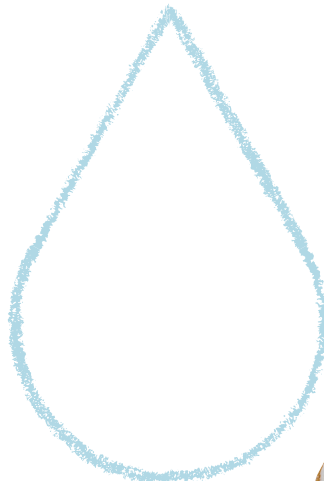
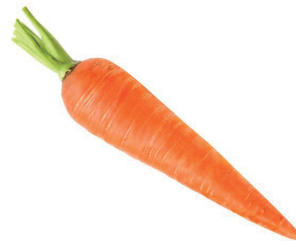
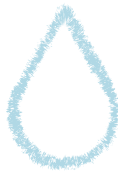
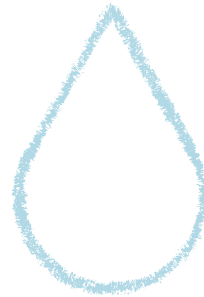




Activity

Name: _____

Color in the water droplet to show how much water is needed to grow this food. Circle the food that uses the least water and cross out the food that uses the most water.



Parents Signature: _____