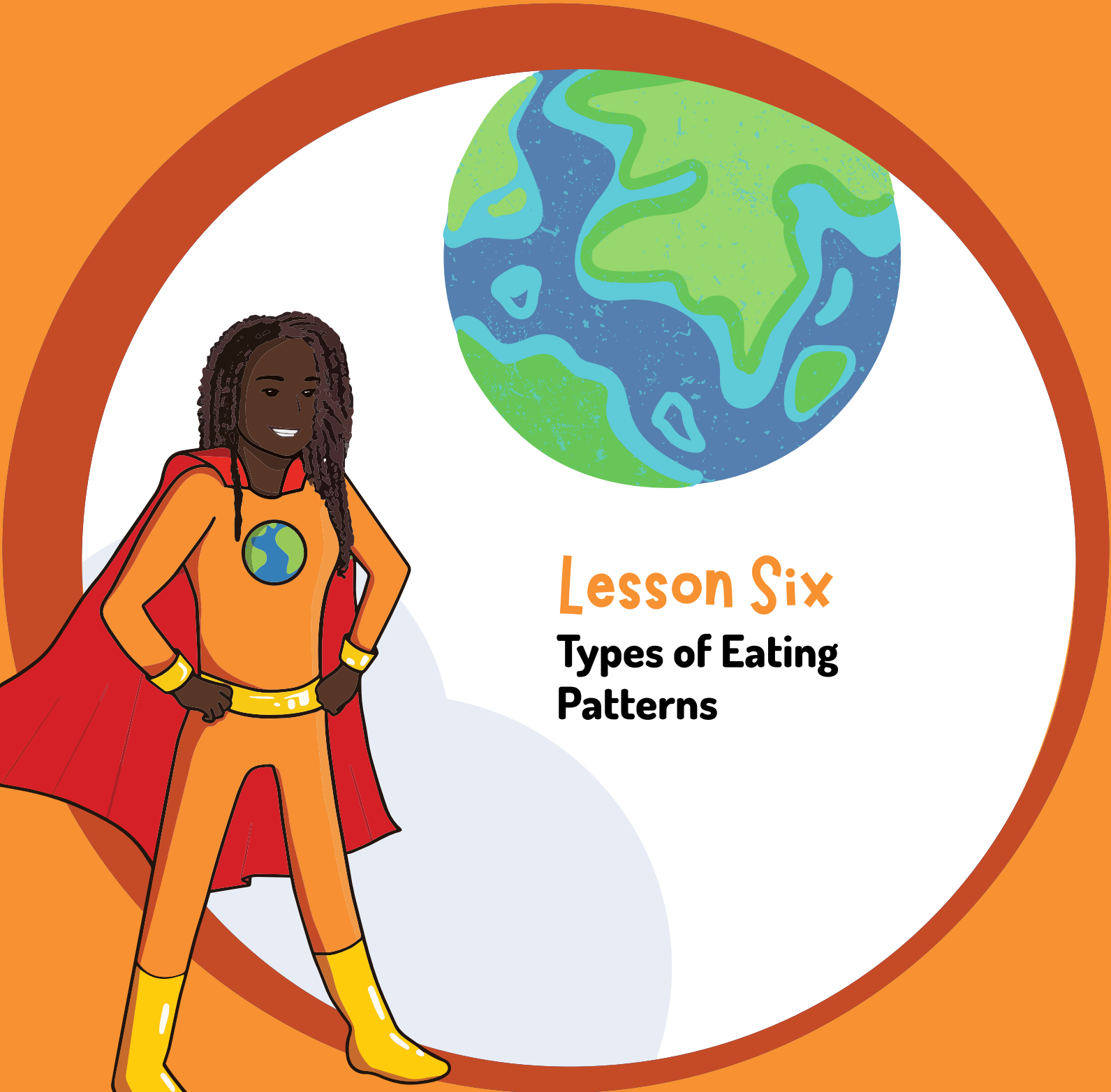




RUTGERS-NEW BRUNSWICK  
School of Environmental  
and Biological Sciences



# Lesson Six

## Types of Eating Patterns



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## Lesson Overview

From previous lessons, students have developed a basic understanding of the greenhouse effect, and a conceptual toolbox for thinking about food systems. This lesson focuses students' attention on understanding the different eating patterns. Three main eating patterns are presented in this lesson: animal-based, plant forward, and plant-based. The main goals of this lesson are for the students to be able to place any food group or food item into one of those three eating patterns and understand the differences between the three. Students will also be introduced to the concept that the production of different foods requires different resources or inputs. This idea will be presented comparing and contrasting the resources or inputs needed to grow an apple and raise a cow for consumption. Students will have a chance to compare the differences among the three eating patterns. This lesson will end with students doing an activity which will solidify their understanding of the foods that belong within each eating pattern.

## Next Generation Science Standards

**5-ESS3-1:** Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

### Science and Engineering Practices

- Developing and using models
- Using a model to describe phenomena.

### Cross Cutting Concepts

- Systems and system models
- Cause and effect

### Disciplinary Core Ideas

**ESS3.C:** Human Impacts on Earth Systems

## Driving Questions

- What types of foods use more resources or inputs?
- What are some types of eating patterns?

## Observable phenomena

- Images from Time Magazine
- Learning Objectives





## Learning Objectives

Students will be able to:

- Describe the different types of eating patterns.
- Understand that production of food products from animals (red meat and dairy) requires more resources or inputs than production of food products from plants.

## Behavior Change Objectives

Students will be able to:

- Categorize various food items as part of one of the three eating patterns presented in this lesson.

## Keywords

**Food production | resources/inputs | animal-based foods | plant-based foods**

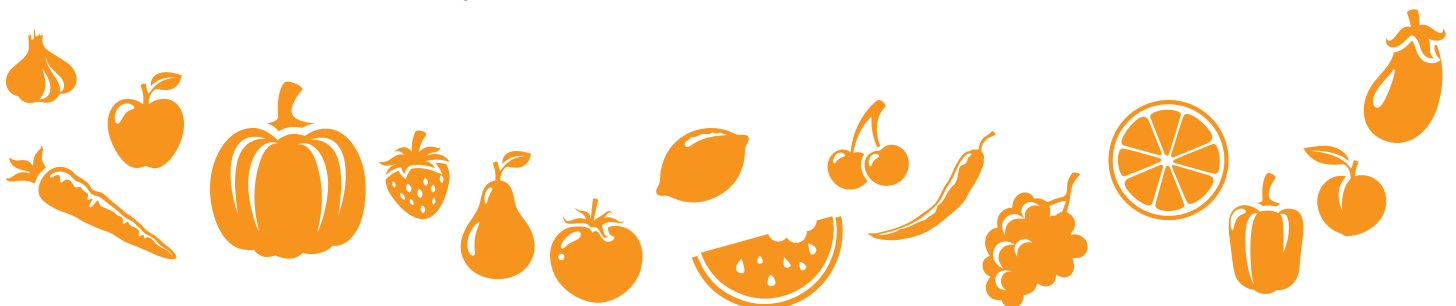
## Before you Begin

- Prepare to show slides to class.
- Make enough copies of handouts.
- Prepare the Pin the Meal on the Plate game.

## Materials

- Presentation Slides & Worksheets
- Computer/Chromebook/Technology
- Pin the Meal on the Plate game pieces.
- Exit Ticket

*Orange Italicized words are weblinks for more information.*





## Lesson

### 1st Recap

1. Recap with students the previous lesson by discussing food systems and how food moves through different stages to get to us.
2. Outline today's lesson by letting the class know that we will be discussing eating patterns and how different resources or inputs are needed for different foods.

### 2nd Resources and Inputs Discussion

1. Discuss with the students the different resources or inputs that are needed to produce an apple and raise a cow. Allow students to think about this with minimal prompts or background information. The goal is to get the students thinking and sharing about all the steps involved and what is needed. Then move onto the slide showing the different food systems of the cow and the apple. Lead a discussion with the students identifying the differences and similarities between both.

### 3rd Observable Phenomena – Notice and Wonder

1. Students are told they are going to be learning about different kinds of eating patterns. This might mean some people eat more vegetables than others, some people eat more animals than others or there might be some people who eat a mix of the two. Students are then told they will be looking at photographs of what children in other countries eat in one week. Instruct students to use the Notice & Wonder handout to write down their notice & wonder statements (“I notice that...” or “I wonder why...”). Allow the students to look at the images for long enough to develop a few notice & wonder statements to share. Bring the class together to discuss what students wrote down.

### 4th Eating Patterns Lesson

1. Begin a discussion with the students talking about different types of eating patterns: animal-based, plant forward, or plant-based. Have students identify what foods they think go into each category by giving examples of different foods and discussing what category foods like lasagna would go into. Show slides that compare what food groups go into each category. Ensure that you make the distinction that plant-forward foods can include small amounts of fish, chicken, and eggs, but does not include any red-meat. Allow students to ask questions and clarify any confusion about the eating patterns. Give students a few minutes to complete the ‘eating patterns’ handout.
2. Have students play the pin the meal on the plate game where they will take different food items and match it with a plant-based, plant forward, or animal-based meal.
3. Provide students with a summary of the lesson by reviewing the ‘Let’s Summarize’ slide.

## Exit Ticket

1. Teacher passes out Exit Ticket.
2. The teacher collects exit tickets and reviews student answers. Make minor adjustments to the next lesson based on data received.

