

# GUARDIANS OF THE FOOD GALAXY

## LESSON 11





# LESSON 11: Carbon Footprint - Meal Planning Activity Worksheet

## Animal - Based Eating Pattern

**Directions:** Pretend you are planning your family's meals for the next 7 days. Remember: Everyone in your family follows an Animal - Based - eating pattern! As a group, first decide on five foods you'd like to eat for each meal. Choose your foods from the list on the Carbon Footprint Calculator: <https://harvard-foodprint-calculator.github.io/> Second, decide how often in the next week you'd like to eat that food. Third, use the Carbon Footprint Calculator handout to find the amount of greenhouse gases and the equivalent miles.

### Animal-based Foods

Can include red meat in every meal.  
**\*\*Red meat includes cows, sheep, goats, deer, and buffalo.**



Family Name: \_\_\_\_\_

### Breakfast

Food Item		Frequency			
<b>Total amount of outputs:</b>					
kg of Carbon	gal of Gas	g of Nitrogen	lb of Fertilizer	L of Water	# of Bathtubs

# Animal - Based Eating Pattern

Lunch

Food Item		Frequency			
<b>Total amount of outputs:</b>					
kg of Carbon	gal of Gas	g of Nitrogen	lb of Fertilizer	L of Water	# of Bathtubs

# Animal - Based Eating Pattern

Dinner

Food Item		Frequency			
<b>Total amount of outputs:</b>					
kg of Carbon	gal of Gas	g of Nitrogen	lb of Fertilizer	L of Water	# of Bathtubs

## GRAND TOTAL

Add your total amount for  
breakfast, lunch and  
dinner

\_\_\_\_\_ kg Carbon = \_\_\_\_\_ gallons of gasoline

\_\_\_\_\_ g Nitrogen = \_\_\_\_\_ pounds of fertilizer

\_\_\_\_\_ L Water = \_\_\_\_\_ bathtubs of water



# LESSON 11: Carbon Footprint - Meal Planning Activity Worksheet

## Plant Forward Eating Pattern

**Directions:** Pretend you are planning your family's meals for the next 7 days. Remember: Everyone in your family follows an Plant Forward - eating pattern! As a group, first decide on five foods you'd like to eat for each meal. Choose your foods from the list on the Carbon Footprint Calculator: <https://harvard-foodprint-calculator.github.io/> Second, decide how often in the next week you'd like to eat that food. Third, use the Carbon Footprint Calculator handout to find the amount of greenhouse gases and the equivalent miles.

Plant Forward  
Includes small quantities of animal foods with **no red meat.**  
*\*\*Can include small amounts of fish, chicken, and eggs in every meal.*



Family Name: \_\_\_\_\_

### Breakfast

Food Item		Frequency			
<b>Total amount of outputs:</b>					
kg of Carbon	gal of Gas	g of Nitrogen	lb of Fertilizer	L of Water	# of Bathtubs

# Plant Forward Eating Pattern

Lunch

Food Item		Frequency			
<b>Total amount of outputs:</b>					
kg of Carbon	gal of Gas	g of Nitrogen	lb of Fertilizer	L of Water	# of Bathtubs

# Plant Forward Eating Pattern

Dinner

Food Item		Frequency			
<b>Total amount of outputs:</b>					
kg of Carbon	gal of Gas	g of Nitrogen	lb of Fertilizer	L of Water	# of Bathtubs

## GRAND TOTAL

Add your total amount for  
breakfast, lunch and  
dinner

\_\_\_\_\_ kg Carbon = \_\_\_\_\_ gallons of gasoline

\_\_\_\_\_ g Nitrogen = \_\_\_\_\_ pounds of fertilizer

\_\_\_\_\_ L Water = \_\_\_\_\_ bathtubs of water






# LESSON 11: Carbon Footprint - Meal Planning Activity Worksheet

## Plant - Based Eating Pattern

**Directions:** Pretend you are planning your family’s meals for the next 7 days. Remember: Everyone in your family follows an Plant - Based eating pattern! As a group, first decide on five foods you’d like to eat for each meal. Choose your foods from the list on the Carbon Footprint Calculator: <https://harvard-foodprint-calculator.github.io/> Second, decide how often in the next week you’d like to eat that food. Third, use the Carbon Footprint Calculator handout to find the amount of greenhouse gases and the equivalent miles.

Plant-based Foods

**Does not include animal products. More whole foods that are not processed as much.**



**Family Name:** \_\_\_\_\_

### Breakfast

Food Item		Frequency			
<b>Total amount of outputs:</b>					
kg of Carbon	gal of Gas	g of Nitrogen	lb of Fertilizer	L of Water	# of Bathtubs

# Plant - Based Eating Pattern

Lunch

Food Item		Frequency			
<b>Total amount of outputs:</b>					
kg of Carbon	gal of Gas	g of Nitrogen	lb of Fertilizer	L of Water	# of Bathtubs

# Plant - Based Eating Pattern

Dinner

Food Item		Frequency			
<b>Total amount of outputs:</b>					
kg of Carbon	gal of Gas	g of Nitrogen	lb of Fertilizer	L of Water	# of Bathtubs

## GRAND TOTAL

Add your total amount for  
breakfast, lunch and  
dinner

\_\_\_\_\_ kg Carbon = \_\_\_\_\_ gallons of gasoline

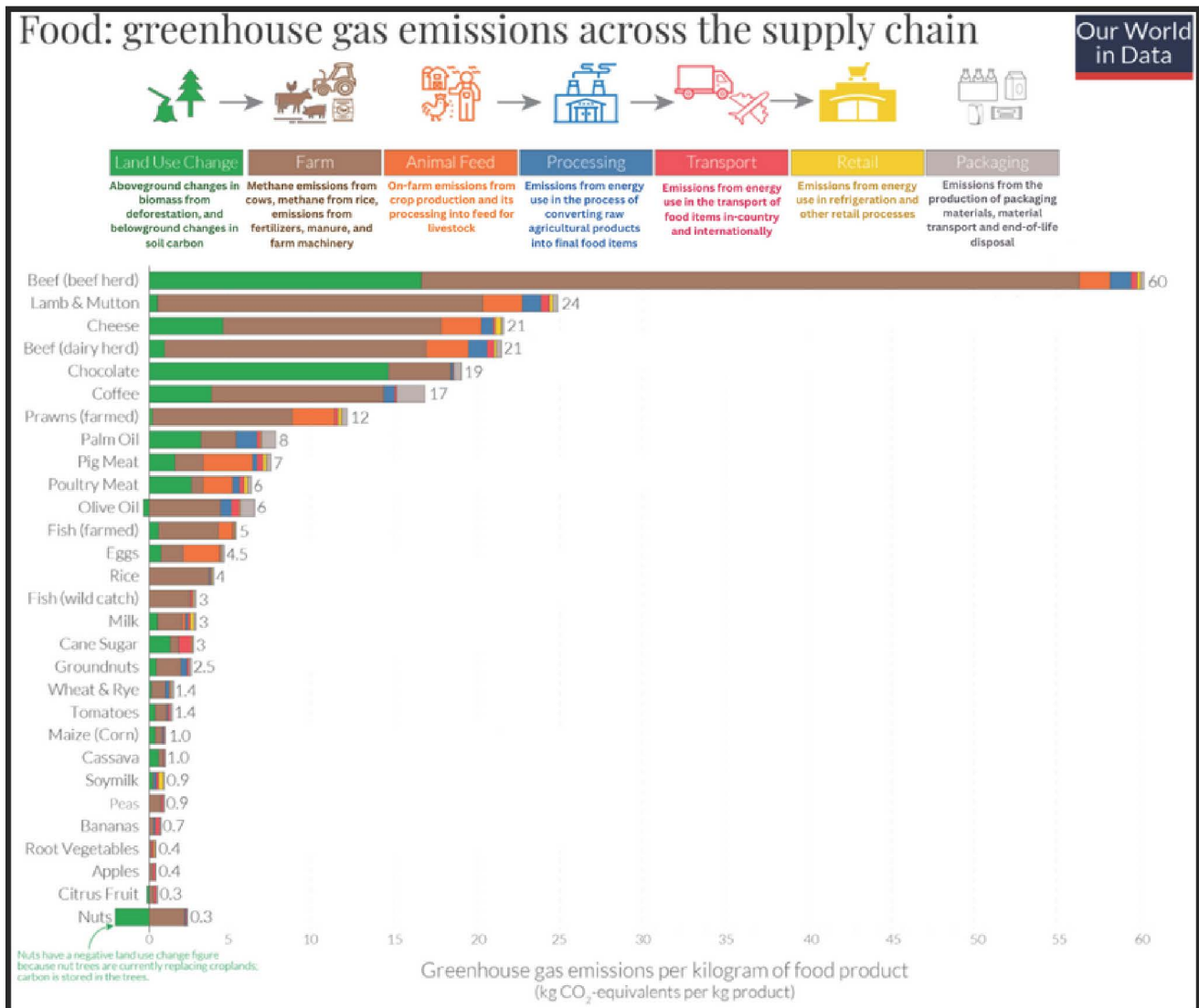
\_\_\_\_\_ g Nitrogen = \_\_\_\_\_ pounds of fertilizer

\_\_\_\_\_ L Water = \_\_\_\_\_ bathtubs of water



# LESSON 11: Carbon Footprint

What is this bar graph telling us?



**Directions** – Use the figure to answer the questions on the next page

# LESSON 11: Carbon Footprint

What is this bar graph telling us?

**Directions** – Use the figure to answer the following questions

1. What does each of the colors on the bar mean?

a. What does the green part of the bar mean?

\_\_\_\_\_

b. What does the brown part of the bar mean?

\_\_\_\_\_

c. What does the orange part of the bar mean?

\_\_\_\_\_

d. What does the blue part of the bar mean?

\_\_\_\_\_

e. What does the red part of the bar mean?

\_\_\_\_\_

f. What does the yellow part of the bar mean?

\_\_\_\_\_

g. What does the grey part of the bar mean?

\_\_\_\_\_

2. What do you observe as the main differences between the different foods?

\_\_\_\_\_  
\_\_\_\_\_

3. What foods have the highest greenhouse gas emissions?

\_\_\_\_\_  
\_\_\_\_\_

4. What foods have the least greenhouse gas emissions?

\_\_\_\_\_  
\_\_\_\_\_

5. Which part of the food system makes up the most emissions?

\_\_\_\_\_  
\_\_\_\_\_

6. Which part of the food system makes up the least emissions?

\_\_\_\_\_  
\_\_\_\_\_