Brainstorm Teacher Guide

	Prompts	Examples
Activities	▪ What activities are involved in getting these ingredients to our plates? ▪ How are the raw ingredients transformed into something we can eat? ▪ Who are the people involved at each step?	▪ Growing and harvesting crops ▪ Breeding, feeding, housing, transporting, and slaughtering animals ▪ Processing, packaging, transporting, storing, marketing, selling, preparing, eating, disposing of, and composting food
Resources	▪ What resources are used in each activity? ▪ Consider both natural and human resources.	▪ Natural resources, (e.g., land, water, soil, fossil fuels) ▪ Labor, knowledge, money, machinery, fertilizers, pesticides, animal feed
Effects on health, society, environment	▪ How could each activity affect health, society, and the environment? ▪ Consider both positive and negative impacts. ▪ For positive impacts, think about the reasons we process food (e.g., to preserve it), for example, or why we transport it long distances (e.g., to provide year-round variety).	▪ Positive impacts: feeding people, promoting health, creating jobs, strengthening communities, convenience, enjoyment, cultural expression ▪ Negative impacts: chronic disease, foodborne illness, worker injuries, hunger, greenhouse gases, air and water pollution, resource depletion, biodiversity loss, animal suffering
Influences	▪ What are some factors that influence each activity? ▪ Consider both societal and ecological factors. ▪ Think about how farmers decide what crops to grow, for example, or why we eat what we eat.	▪ Influences on the supply chain: consumer demand, government policy, technology, worldview, climate, geology, biodiversity ▪ Influences on what we eat: taste, cost, values, family, friends, culture, food availability, marketing, government policy

Food System Connection Cards (p.1 front)

Fish	Crop	Water	
Pathogen	Chicken	Soil	
Compost	Cow	Climate	

- Essential members of aquatic ecosystems
- Needs freshwater or saltwater (depending on the species) and food
- May be eaten by humans or other animals

- Disease-causing microorganism
- Some strains live in the guts of animals
- May be transported via air, water, soil, or food

- Made by decomposing manure, food waste, plant matter, or other organic materials
- Can be applied to soil to make it more fertile, helping plants grow

- Needs sun, water, fertile soil, carbon dioxide, and oxygen
- Produces food and oxygen
- Can be composted to enrich soil

- Needs food, land, air, water, and humane living conditions
- Can be raised for meat or eggs
- Produces manure

- Needs food, land, air, water, and humane living conditions
- Can be raised for meat or milk
- Produces manure and methane

- Needed by plants, animals, and humans
- Used for irrigating crops
- May be contaminated by animal waste, chemical fertilizers, and other pollutants

- Supports plant life
- Subject to contamination and erosion
- Contains ecosystems that are mostly microscopic

- The prevailing weather conditions in an area over a long period
- Affects what kind of plants and animals can survive in a region

Food System Connection Cards (p.1 back)

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Food System Connection Cards (p.2 front)

Supermarket	Truck Driver	Pesticide	
Government	Food Service Worker	Chemical Fertilizer	
Food Citizen	Corner Store	Farm Worker	

- Often provides a wider variety of healthy options, at lower prices, than smaller stores

- Enacts policies that affect farming practices, food safety, hunger relief, minimum wage laws for food chain workers, and more

- Buys and consumes food
- Takes action on food system issues by voting, organizing, and writing to government officials

- Transports food in vehicles that use fossil fuel and produce pollution
- Needs healthy food, air, water, safe working conditions, and a living wage

- Prepares and serves food in restaurants and cafeterias
- Needs healthy food, air, water, safe working conditions, and a living wage

- Typically offers a smaller variety of options, at higher prices, than supermarkets

- Kills weeds, insects, fungi, or other pests that damage crops
- Can contaminate food, soil, air, and water and cause health problems

- Helps plants grow
- Can contaminate water and cause health problems

- Plants, tends, and/or harvests food crops
- Needs healthy food, air, water, safe working conditions, and a living wage

Food System Connection Cards (p.2 back)

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Washington Apple Supply Chain Cards

Growing

Apples grow in orchards

Harvesting

Apples are picked by hand

Washing, grading, waxing

A wax coating helps keep apples crisp

Packing

Apples are sorted and packed into 40-pound cartons

Distributing

Apples are transported up to thousands of miles in refrigerated trucks

Processing

Some apples may be canned or made into applesauce, pie filling, etc.

Packaging

Packaging depends on how the apples are processed, if at all

Retailing

Apples are sold in a variety of stores

Preparing

Apples can be eaten whole, added to salads, cooked in pies, etc.

Consuming

Apples are eaten

Disposing

Throughout the supply chain, some apples and parts of apples are discarded

Composting

Discarded apples can be composted and used to help grow more apples or other crops

Broiler Chicken Supply Chain Cards

Soy growing

Soybeans are grown for animal feed

Soy harvesting

Soybeans are harvested for animal feed

Corn growing

Corn is grown for animal feed

Corn harvesting

Corn is harvested for animal feed

Fish harvesting

Fish are harvested for animal feed

Chick hatching

Baby chickens are hatched and processed

Feed processing

Soy, corn, fish, and other ingredients are combined to make poultry feed

Producing

Over 100,000 chickens are typically raised and fed in a single facility

Processing

Chickens are slaughtered, defeathered, and sanitized

Retailing

Packaged chicken products are sold in supermarkets and other stores

Preparing

Chicken products are cooked

Consuming

Chicken products are eaten