### Lesson A: Exploring the Food System

**Prompts**

- **What activities are involved in getting these ingredients to our plates?**
  - Examples: Growing and harvesting crops, breeding, feeding, housing, transporting, and slaughtering animals.

- **How are the raw ingredients transformed into something we can eat?**
  - Examples: Processing, packaging, transporting, storing, marketing, selling, preparing, eating, disposing of, and composting food.

- **Who are the people involved at each step?**
  - Examples: Natural resources, labor, knowledge, money, machinery, fertilizers, pesticides, animal feed.

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### Examples

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- Natural resources, labor, knowledge, money, machinery, fertilizers, pesticides, animal feed.

### Effects on health, society, and the environment

- 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

- 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.

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### Food System Connection Cards (p. 1 front)

<table>
<thead>
<tr>
<th>Compost</th>
<th>Pathogen</th>
<th>Fish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop</td>
<td>Chicken</td>
<td>Cow</td>
</tr>
<tr>
<td>Soil</td>
<td>Climate</td>
<td>Water</td>
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- **Water**
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Lesson A: Exploring the Food System

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

- Supports plant life and contains ecosystems that are mostly microscopic.

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

- May be eaten by humans or other animals.

- 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.

- Essential members of aquatic ecosystems, needed by plants, animals, and humans.

- Needed by plants, animals, and humans. Can be raised for meat or milk, produces manure and methane.

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

- Disease-causing microorganism. May be contaminated by animal waste, chemical fertilizers, and other pollutants.

- Contaminated by animal waste, chemical fertilizers, and other pollutants. Used for irrigating crops and erosion.

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

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<th>Food System Connection Cards (p.2 front)</th>
</tr>
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<tbody>
<tr>
<td><strong>Supermarket</strong></td>
</tr>
<tr>
<td><strong>Truck Driver</strong></td>
</tr>
<tr>
<td><strong>Pesticide</strong></td>
</tr>
<tr>
<td><strong>Government</strong></td>
</tr>
<tr>
<td><strong>Food Service Worker</strong></td>
</tr>
<tr>
<td><strong>Chemical Fertilizer</strong></td>
</tr>
<tr>
<td><strong>Food Citizen</strong></td>
</tr>
<tr>
<td><strong>Corner Store</strong></td>
</tr>
<tr>
<td><strong>Farm Worker</strong></td>
</tr>
</tbody>
</table>
Lesson A: Exploring Our Food System

| Plants, tends, and/or harvests food crops | Helps plants grow and 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 |
| Plants, tends, and/or harvests food crops | Kills weeds, insects, fungi, or other pests that damage crops and water and cause health problems |
| Plants, tends, and/or harvests food crops | Can contaminate food, soil, air, water and produce pollution |
| Plants, tends, and/or harvests food crops | Transports food in vehicles that use fossil fuel and produce pollution |
| Plants, tends, and/or harvests food crops | Prepares and serves food in restaurants and cafeterias |
| Plants, tends, and/or harvests food crops | Typically offers a smaller variety of options, at higher prices, than supermarkets |
| Plants, tends, and/or harvests food crops | Enacts policies that affect farming practices, food safety, hunger relief, minimum wage laws for food chain workers, and more |
| Plants, tends, and/or harvests food crops | Takes action on food system issues by voting, organizing, and writing to government officials |
| Plants, tends, and/or harvests food crops | Buys and consumes food |
| Plants, tends, and/or harvests food crops | Often provides a wider variety of healthy options, at lower prices, than smaller stores |

Food System Connection Cards (p.2 back)
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
<table>
<thead>
<tr>
<th><strong>Soy growing</strong></th>
<th><strong>Soy harvesting</strong></th>
<th><strong>Corn growing</strong></th>
<th><strong>Corn harvesting</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Soybeans are grown for animal feed</td>
<td>Soybeans are harvested for animal feed</td>
<td>Corn is grown for animal feed</td>
<td>Corn is harvested for animal feed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Fish harvesting</strong></th>
<th><strong>Chick hatching</strong></th>
<th><strong>Feed processing</strong></th>
<th><strong>Producing</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish are harvested for animal feed</td>
<td>Baby chickens are hatched and processed</td>
<td>Soy, corn, fish, and other ingredients are combined to make poultry feed</td>
<td>Over 100,000 chickens are typically raised and fed in a single facility</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th><strong>Processing</strong></th>
<th><strong>Retailing</strong></th>
<th><strong>Preparing</strong></th>
<th><strong>Consuming</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chickens are slaughtered, defeathered, and sanitized</td>
<td>Packaged chicken products are sold in supermarkets and other stores</td>
<td>Chicken products are cooked</td>
<td>Chicken products are eaten</td>
</tr>
</tbody>
</table>