25min Urban Planning Workshop
Grade 12 Facilitator Notes

Objective: Students will connect urban planning and how it impacts food security in a community. Student will participate in the planning of a garden, considering many factors from an urban planning perspective.

Recipe Category: Soil & Composting

Cooking Time: 25 mins

Level of Difficulty: Grade 12

Recipe Ingredients:

- **Clip boards**
- **Markers**
- **Pens**

Curriculum Links:

Grade	Subject Area	Ontario Curriculum Links
12	Canadian and World Issues	*Human-Environment Interactions* Evaluate approaches, policies, and principles relating to the protection and sustainability of the planet's life-support systems. (O) ▪ Assess how municipal, provincial and federal government policies contribute to sustainable resource development in Canada. (S)
	Food and Nutrition Sciences	*Personal and Social Responsibilities* Identify examples of entrepreneurship in the food industry and occupations related to food and nutrition sciences. (O) ▪ Identify types of small businesses related to the food industry. (S) *Diversity, Interdependence, and Global Connections* Identify the factors that are critical to achieving and maintaining food security and eliminating hunger. (O) ▪ Summarize the causes of food insecurity. (S) ▪ Identify ways in which the local community is responding to hunger and food security. (S)

Introduction: (5 mins)

Planning and urban agriculture:

Urban planning allocates space in the city for specific land uses such as housing, stores, industry, and institutions like schools. We plan these uses based on the needs of people today and the needs of future populations.

Caring for the environment is important to planners. Environmentally friendly cities have things like buildings that require less energy, parks and street trees, and urban agriculture.
People who are interested in urban agriculture and how cities work may want to work in this area. There will be more and more jobs for environmental planners as our cities grow!

The benefits of urban agriculture:
There are a number of benefits to growing food in the city:

- **Urban agriculture reduces the distance that food travels to reach our plate.** On average food travels between 1,500 and 2,500 miles just to reach our plates. But with rising fuel costs and transportation-related pollution, planners are looking for ways to reduce this distance.

- **Urban agriculture brings food closer to home for greater security.** Climate change is expected to cause an increase in traumatic weather events, such as floods and droughts. These events can disrupt crops and the roads used to transport food. Having food grown closer to home ensures access even in the face of emergencies.

- **Urban farming creates healthier environments.** Urban farming tends to use less water and energy and producing vastly less pollution and carbon emissions than conventional agriculture

Food Strategy Madness!: (15 mins)

Ask students to develop a food strategy for Toronto. Your food strategy will help you plan your garden. Your food strategy should answer the following questions.

What will you use your garden for?

The purpose of your garden is the foundation of your food strategy. Who will benefit from your garden and why (e.g. office staff, restaurants, food banks, education)?

What types of food will you grow and how?

The types of food that you will grow depend on the purpose of your garden. What types of fruits, vegetables and herbs will you grow?

Fruits, vegetables and herbs have different growing needs. When you plan your garden think about the growing requirements for these plants. Here are some growing tips:

- Hearty greens (like kale and chard) grow in the cool spring and fall
- Squash and other root vegetables (like carrots and potatoes) can be kept in cold cellars for up to six months
- Fruits (including tomatoes) have a short growing season but can be processed and used year round

You can extend the growing season using greenhouses. **Greenhouses** are structures that protect crops from too much heat or cold. They also help to keep out pests. Light and temperature control allow food to be grown year round. Remember, greenhouses need energy to run. Where would this come from?

You can preserve food from spoiling by **processing** it. For example, fruits can be turned into jams. Vegetables like cucumbers and onions can be pickled in jars.

Consider the following inputs and outputs needed for growing your garden.
Think about what will work best given the conditions of your location. For example, would manure work for Yonge and Dundas Square? This will help you decide how you grow your food.

Plants need water to grow. How will you collect water (e.g. rain barrels, municipal services)? Think about water conservation.

Plants need healthy soil with nutrients from composting. You should compost on your site. How can you integrate this with what's happening in and around your site?
You can plant you garden directly in the ground, but you can also create gardens on walls and in containers. Be creative!

Vertical Gardens

Vertical gardens can grow on the walls of buildings, indoors and outdoors. They can also grow on trellises or ladders. They do not use soil.

Good food for vertical gardening: tomatoes, bell peppers, cucumbers, squash, leafy greens

Container Gardens

Containers can be made out of anything. They can be rain barrels, old tires, planter boxes, even bathtubs. They work well for gardening because they take up little space and can be moved around with the movement of the sunlight.

Good food for container gardening: herbs, cucumbers, eggplant, green beans, green onions, leaf lettuce, peppers, potatoes, tomatoes

Who will manage and harvest your garden?

You will need to make sure that your garden is taken care of throughout the growing season. Who will be responsible for planting your garden? Who will make sure that the plants are watered and composted. Who will harvest your garden and distribute the food? Will they be paid or is this volunteer?

Present back to the group:

- What will you use your garden for?
- What types of food will you grow and how?
- Who will manage and harvest your garden?

Serving Suggestions:

Please see attached .pfd's:

- Yonge and Dundas Square
- East York Collegiate Institute
- 197 Spadina
- Examples of Urban Agriculture