

Week 6 - Green new meal



**Journey of a tomato**

**Instructions:**

Print out the clues (questions and multiple choice answers) starting on the next page. Cut along the lines of the cards. Be sure to keep the questions and answers organized in groups, and in order from 1-10.

After the multiple choice answers on each page, you will see a short blurb (with no outline) indicating the correct answer – cut this out and glue onto the back of the correct answer card. For some questions, there is more than one correct answer, so there will be multiple correct answer blurbs to cut out and paste.

After labelling the correct answers, you can begin setting the game up according to instructions in the lesson plan.

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1. *Canada is the main producer of greenhouse tomatoes in North America. Ontario produces 63% of all tomatoes grown in the country. There's a town in southern Ontario known as the "Tomato Capital of Canada." What is that town called?*

Leamington

Tillsonburg

Vienna

**Leamington is correct!** However, all three of these towns are real places in Ontario with big agricultural industries.

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2. What kind of soil does it take to grow a tomato?

Sandy

Clay

Loam

**The best soil type for tomatoes is loam OR sandy soil that's slightly acidic.** The only soil tomatoes don't grow well in is heavy clay soil.

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3. *Are tomatoes grown in greenhouses or outdoors in fields here in Canada?*

Inside! It gets too cold here for them to grow.

Outside! We've got tons of sun in the summer.

**Both answers are correct!** Canadian tomatoes grown for processing (to be canned) are grown outdoors in the field. Fresh tomatoes that we buy at the grocery store are grown in greenhouses here.

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*4. Tomatoes get thirsty too! How much water do you think is needed to produce a single tomato fruit?*

5.5 litres

12.5 litres

20 litres

**12.5 litres is the right answer –**  
that’s about 53 cups of water per tomato!

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5. The agricultural industry makes a lot of money! In Canada, we have many BIG corporate farms that produce lots of tomatoes. Greenhouse tomato production ranks first in terms of total greenhouse fruit and vegetable sales in Canada. In 2017, greenhouse tomato production was valued at \_\_\_\_\_ million dollars.

120

360

555

**\$555 million is correct.** Large corporate farm owners make a lot of money from veggie production here in Canada, especially because the Canadian government subsidizes a lot of their expenses.

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*6. Local or imported? If you wanted to lower your carbon footprint, would you reach for an Ontario-grown tomato or a Mexican-grown tomato when you're grocery shopping at the supermarket?*

Ontario-grown

Mexico-grown

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**Yes, a Mexico-grown tomato will have a lower carbon footprint IF** the Ontario-grown tomato is from a large, corporate farm. A tomato grown in a large-scale, commercial greenhouse operation in Ontario generates 10 times its own weight in greenhouse gas emissions – these are the tomatoes we would likely see sold at a chain supermarket. In this case, the imported tomato would have a lower carbon footprint (yes, even with transportation factored in)! This is because tomatoes are native to Mexico, so they are able to grow outdoors there, generating a lot less greenhouse gas emissions.

BUT, an Ontario-grown tomato could have a lower carbon footprint **IF** it was grown on a small scale farm, or a solar-powered greenhouse. So, if you buy the tomato at a local market stand or through a CSA, it would likely have a lower carbon footprint than an imported tomato.

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**Yes, an Ontario-grown tomato will have a lower carbon footprint IF** it is grown on a small scale farm, or a solar-powered greenhouse. So, if you buy the tomato at a local market stand or through a CSA, it would have a lower carbon footprint than an imported tomato.

A local tomato grown in a large-scale, commercial greenhouse operation generates 10 times its own weight in greenhouse gas emissions – these are the tomatoes we would likely see sold at a chain supermarket. In this case, the tomato from Mexico (where tomatoes can be grown outdoors) would have a lower carbon footprint!



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*7. Harvesting starts during the summer months and continues on into the fall. Canadian farms bring in temporary migrant farm workers from other countries to work during this season. These workers work long hours in the greenhouses for very low wages – how many pounds of tomatoes does one migrant farm worker pick on average each day during peak season?*

1060lbs

2200lbs

4800lbs

**4800lbs is the correct response.** According to former workers, each worker will produce about 6 carts full of beefsteak tomatoes each day – each cart carries 40 crates, with crates weighing about 20lbs each.

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8. *That's a lot of tomatoes being harvested. In 2016, 477,641 tonnes of tomatoes were produced in Ontario – what do you think that weight is comparable to?*

Half the weight of the CN Tower

Same weight as the CN Tower

4x the weight of the CN Tower

Ontario alone produces **4x the weight of the CN Tower** in tomatoes every year!

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9. Once the tomatoes have been packed into the crates, they're transported by truck drivers to warehouses across the province. Tomatoes arriving at the warehouse are often not yet ripe, so they are sprayed with ethylene to trigger ripening. Once they've turned a nice red colour, warehouse workers use different techniques to prevent the fruit from going bad before they are sent off to the grocery store. Which of these techniques are used?

Refrigeration

Sanitizers

Fungicides

**All of these answers are correct!** Refrigeration is the safest method, however it does change the texture and flavour of the tomatoes.

**All of these answers are correct!** Sanitizers kill organisms that could cause deterioration to the fruit. They are chemical-based,

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so they could potentially be harmful for humans if they are not applied and washed correctly.

**All of these answers are correct!** Fungicides kill organisms that could cause deterioration to the fruit. They are chemical-based, so they could potentially be harmful for humans if they are not applied and washed correctly.

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10. The tomato finally arrives at the grocery store, where workers stock the shelves with the fruits. The 2020 pandemic exposed the essential nature of these jobs, and yet these workers often struggle to put food on their own tables. Grocery store workers are often paid minimum wage in Toronto, which is \$14. Minimum wage, however, is not living wage (the wage needed to cover the cost of living in a given city). How much do you think the living wage is calculated to be in Toronto?

\$18

\$20

\$22

**\$22 is correct.** Toronto is an expensive city to live in, and the cost of living here continues to rise every year!

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**Congratulations!** You’ve arrived at the grocery store and get to enjoy a ripe, juicy tomato!

As you eat your fruit, remember to recognize all of the labour put into getting it from the field to your plate!

Sources:

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<https://www.grobo.io/blogs/lifestyle/the-journey-how-a-tomato-gets-from-the-farm-to-the-supermarket#:~:text=Even%20growers%20admit%20that%20the%20tomatoes%20don't%20taste%20as%20good.&text=%E2%80%9CNormally%2C%20farmers%20pick%20their%20produce,when%20they%20reach%20their%20destination.>

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[How to Be a Conscious Eater](#), Sophie Egan