



Practitioner submitted task: Prepared for the Project, Teaching to Fish (Build Tasks) Integrating OALCF Task Development within Ontario's Literacy Programs (2014)

OALCF Task Cover Sheet

Task Title: Critical Thinking – Organic Farming

Learner Name:	
Date Started:	Date Completed:
Successful Completion: Yes ___ No ___	
Goal Path: Employment ___ Apprenticeship ___ Secondary School ✓ Post Secondary ✓ Independence ___	
Task Description: The learner will read an article about organic and conventional farming and answer questions about these topics.	
Competency: A: Find and Use Information B: Communicate Ideas and Information	Task Group(s): A1: Read continuous text B2: Write continuous text
Level Indicators: A1.3: Read longer texts to connect, evaluate and integrate ideas and information B2.2 Write texts to explain and describe information and ideas B2.3 Write longer texts to present information, ideas and opinions	
Performance Descriptors: see chart on last page	
Materials Required: <ul style="list-style-type: none">• Pen and lined sheet of paper• Copy of the article and questions	



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Learner Information and Tasks:

Read "Organic foods: Are they safer? More nutritious?" written by the Mayo Clinic staff

Task 1: What are the 3 environmental benefits of organic farming?

Task 2: What are 6 things that organic farmers cannot use on their farm?

Task 3: What are 4 ways organic farmers control weeds on their farm?

Task 4: According to the Mayo Clinic, is organic food more nutritious?

Task 5: What are the 3 main concerns that drive consumers to purchase organic foods?

Task 6. What are the 3 downsides to buying organic?

Task 7. In your own words, explain what the author's purpose was for writing this article?

Task 8: Read the statement and answer the following question in a paragraph on a separate sheet of lined paper.

"Environmentally generated plant killing compounds" are used on organic farms to kill weeds. These sprays are manufactured in a lab and sold to organic farmers. Conventional farmers use synthetic herbicides to kill weeds. Synthetic herbicides are manufactured in a lab and sold to conventional farmers to kill weeds. Both are toxic enough to kill unwanted plants.

In your opinion, is the organic farmer's weed spray safer than the conventional farmer's weed spray? Use facts from the article to support your opinion.



<http://www.mayoclinic.org/http://www.mayoclinic.org/>

Organic foods: Are they safer? More nutritious?

Discover the real difference between organic foods and their traditionally grown counterparts when it comes to nutrition, safety and price. [By Mayo Clinic Staff](#)

Once found only in health food stores, organic food is now a regular feature at most supermarkets. And that's created a bit of a dilemma in the produce aisle. On one hand, you have a conventionally grown apple. On the other, you have one that's organic. Both apples are firm, shiny and red. Both provide vitamins and fiber, and both are free of fat, sodium and cholesterol. Which should you choose?

Conventionally grown produce generally costs less, but is organic food safer or more nutritious? Get the facts before you shop.

The word "organic" refers to the way farmers grow and process agricultural products, such as fruits, vegetables, grains, dairy products and meat. Organic farming practices are designed to encourage soil and water conservation and reduce pollution. Farmers who grow organic produce and meat don't use conventional methods to fertilize, control weeds or prevent livestock disease. For example, rather than using chemical weed killers, organic farmers may conduct more sophisticated crop rotations and spread mulch or manure to keep weeds at bay.

Here are some key differences between conventional farming and organic farming:

Conventional	Organic
Apply chemical fertilizers to promote plant growth.	Apply natural fertilizers, such as manure or compost, to feed soil and plants.
Spray synthetic insecticides to reduce pests and disease.	Spray pesticides from natural sources; use beneficial insects and birds, mating disruption or traps to reduce pests and disease.
Use synthetic herbicides to manage weeds.	Use environmentally-generated plant-killing compounds; rotate crops, till, hand weed or mulch to manage weeds.
Give animals antibiotics, growth hormones and medications to prevent disease and spur growth.	Give animals organic feed and allow them access to the outdoors. Use preventive measures — such as rotational grazing, a balanced diet and clean housing — to help minimize disease.



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The U.S. Department of Agriculture (USDA) has established an organic certification program that requires all organic foods to meet strict government standards. These standards regulate how such foods are grown, handled and processed.

Any product labeled as organic must be USDA certified. Only producers who sell less than \$5,000 a year in organic foods are exempt from this certification; however, they're still required to follow the USDA's standards for organic foods.

If a food bears a USDA Organic label, it means it's produced and processed according to the USDA standards. The seal is voluntary, but many organic producers use it.

Products certified 95 percent or more organic display this USDA seal.



Products that are completely organic — such as fruits, vegetables, eggs or other single-ingredient foods — are labeled 100 percent organic and can carry the USDA seal.

Foods that have more than one ingredient, such as breakfast cereal, can use the USDA organic seal plus the following wording, depending on the number of organic ingredients:

100 percent organic. To use this phrase, products must be either completely organic or made of all organic ingredients.

Organic. Products must be at least 95 percent organic to use this term.

Products that contain at least 70 percent organic ingredients may say "made with organic ingredients" on the label, but may not use the seal. Foods containing less than 70 percent organic ingredients can't use the seal or the word "organic" on their product labels. They can include the organic items in their ingredient list, however.

No, "natural" and "organic" are not interchangeable terms. You may see "natural" and other terms such as "all natural," "free-range" or "hormone-free" on food labels. These descriptions must be truthful, but don't confuse them with the term "organic." Only foods that are grown and processed according to USDA organic standards can be labeled organic.

The answer isn't yet clear. A recent study examined the past 50 years' worth of scientific articles about the nutrient content of organic and conventional foods. The researchers concluded that organically and conventionally produced foodstuffs are comparable in their nutrient content. Research in this area is ongoing.

Many factors influence the decision to choose organic food. Some people choose organic food because they prefer the taste. Yet others opt for organic because of concerns such as:

Pesticides. Conventional growers use pesticides to protect their crops from molds, insects and diseases. When farmers spray pesticides, this can leave residue on produce. Some people buy organic food to limit their exposure to these residues. According to the USDA, organic produce carries significantly fewer pesticide residues than does conventional produce. However, residues on most products — both organic and nonorganic — don't exceed government safety thresholds.

Food additives. Organic regulations ban or severely restrict the use of food additives, processing aids (substances used during processing, but not added directly to food) and fortifying agents commonly used in nonorganic foods, including preservatives, artificial sweeteners, colorings and flavorings, and monosodium glutamate.

Environment. Some people buy organic food for environmental reasons. Organic farming practices are designed to benefit the environment by reducing pollution and conserving water and soil quality.



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One common concern with organic food is cost. Organic foods typically cost more than do their conventional counterparts. Higher prices are due, in part, to more expensive farming practices.

Because organic fruits and vegetables aren't treated with waxes or preservatives, they may spoil faster. Also, some organic produce may look less than perfect — odd shapes, varying colors or smaller sizes. However, organic foods must meet the same quality and safety standards as those of conventional foods.

Whether you go totally organic or opt to mix conventional and organic foods, be sure to keep these tips in mind:

Select a variety of foods from a variety of sources. This will give you a better mix of nutrients and reduce your likelihood of exposure to a single pesticide.

Buy fruits and vegetables in season when possible. To get the freshest produce, ask your grocer what day new produce arrives. Or check your local farmers market.

Read food labels carefully. Just because a product says it's organic or contains organic ingredients doesn't necessarily mean it's a healthier alternative. Some organic products may still be high in sugar, salt, fat or calories.

Wash and scrub fresh fruits and vegetables thoroughly under running water. Washing helps remove dirt, bacteria and traces of chemicals from the surface of fruits and vegetables. Not all pesticide residues can be removed by washing, though. You can also peel fruits and vegetables, but peeling can mean losing some fiber and nutrients.

References

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Sep. 07, 2012

Original article: <http://www.mayoclinic.org/organic-food/art-20043880>



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Answer Key

Task 1: The three environmental benefits of organic farming are: **soil conservation, water conservation and reduced pollution.**

Task 2: What are 6 things that organic farmers cannot use on their farm?

- 1. chemical fertilizer**
- 2. synthetic insecticides**
- 3. synthetic herbicides**
- 4. antibiotics**
- 5. hormones**
- 6. medications**

Task 3: Any 4 of the following:

- 1. use environmentally generated plant killing compounds**
- 2. rotate crops**
- 3. till**
- 4. mulch**
- 5. weed by hand**

Task 4: According to the Mayo Clinic, **“the answer isn't yet clear. The research is ongoing. Current research indicates both types of food are comparable in their nutrient content.”**

Task 5: What are the 3 main concerns that drive consumers to purchase organic foods?

- 1. Consumers want to limit exposure to pesticide residues**
- 2. Consumers want to limit exposure to food additives including preservatives, colourings, flavourings and monosodium glutamate.**
- 3. Consumers want to support environmentally responsible practices including reducing pollution, conserving water and improving soil quality.**

Task 6: The three downsides of buying organic include: **cost** (more expensive), **may spoil faster** (no waxes or preservatives are used) and the products **may look less than perfect.**



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Task 7: The author's purpose was **education**. The author was describing the differences between organic and conventional food production.

Task 8: Answers will vary. (Accept any other reasonable facts that would support their opinion.)

If the learner answers YES, possible reasons to support that opinion are:

1. The organic farmers' weed spray is naturally occurring
2. The organic farmers' weed spray is toxic to plants and not necessarily toxic to humans
3. There are fewer pesticide residues on organic food compared to conventionally grown food.

If the learner answers NO, possible reasons to support that opinion are:

1. Both organic and conventional pesticides are toxic. They both kill plants.
2. Both organic and conventional pesticides have residues.
3. Neither pesticide exceeds the government safety threshold.



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Performance Descriptors		Needs Work	Completes task with support from practitioner	Completes task independently
A1.3:	<ul style="list-style-type: none"> integrates several pieces of information from texts 			
	<ul style="list-style-type: none"> manages unfamiliar elements (e.g. vocabulary, context, topic) to complete tasks 			
	<ul style="list-style-type: none"> identifies the purpose and relevance of texts 			
B2.2	<ul style="list-style-type: none"> writes texts to explain and describe 			
B2.3	<ul style="list-style-type: none"> writes texts to present information, summarize, express opinions, present arguments, convey ideas or persuade 			
	<ul style="list-style-type: none"> selects and uses vocabulary, tone and structure appropriate to the task 			
	<ul style="list-style-type: none"> organizes and sequences writing to communicate effectively 			
	<ul style="list-style-type: none"> uses a variety of vocabulary, structures and approaches to convey main ideas with supporting details 			

This task: was successfully completed ___ needs to be tried again ___

Learner Comments

Instructor (print)

Learner Signature