



Spuds in Tubs

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**A Step by Step Guide to
Growing Potatoes with your Class**



Introduction

Welcome to the *BC Agriculture in the Classroom Foundation Spuds in Tubs Program.*

Spuds in Tubs was created in response to teachers who wanted to know what the Foundation did in support of school gardens. We understood that not all had access to school gardens and that many teachers wanted to give their students a chance to grow, harvest and eat a fruit or vegetable as part of their school experience. We also understood that teachers and students had difficulty caring for fruits and vegetables over the summer months when school is not in session.

So we thought why not make a garden in tubs that could produce a crop for students before the end of June? Working with our partners we found just the right potato – the variety called Warba – that would produce a small nugget potato in just 60 days. We then found just the right compost, the right plant food and the right containers. Now students and teachers from many grades and subject areas can enjoy their crop of early nugget potatoes as part of their school experience.

Program Partners:

Art Knapp's Plantland Courtenay

BC Landscape Nursery Trades
Association

BC Potato and Vegetable Growers'
Association

Buckerfield's Limited

Canadian Western Bank

Cy Growers

David Hunter Garden Center - Surrey,
Vancouver

Dykhof Nursery - North Vancouver

GardenWorks - Mandeville,
North Burnaby

GardenWorks at North Burnaby

Grow and Gather

Minter Country Garden

Phoenix Perennial

Stick 'N Stones Nursery

W&A Farms Inc.

West Creek Farms

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BC Ministry of Education 2014
Curriculum Competencies covered through this program
(Downloaded October 2014, from <https://curriculum.gov.bc.ca/>)

Communication: encompasses the set of abilities that students use to impart and exchange information, experiences and ideas, to explore the world around them, and to understand and effectively engage in the use of digital media.

Lesson Examples: Students may...

- research issues and ideas about agriculture in BC, specifically potato farming, using mobile labs, iPads, and other technology available (Social Studies; middle/high school)
- observe and record the growth of their plants and report the changes using graphs, charts, and pictures (Science, Math, Art; all grade levels)
- report their findings to the class using different mediums; Power Point, Prezi, iMovie, Poster, Storyboard, Book Report, Pamphlet (Technology/Computers; all grade levels)

Thinking: encompasses the knowledge, skills and processes we associate with intellectual development. Through this competency as thinkers, students take subject-specific concepts and content and transform them into a new understanding. Thinking competence includes specific thinking skills as well as habits of mind, and metacognitive awareness.

Lesson Examples: Students may...

- write out questions and then interview a local farmer during an afterschool visit, fieldtrip, or in-class visit and communicate their findings to the class (English; all grade levels)
- use the ideas generated to invent a solution for world hunger including easy growing techniques such as the Spuds in Tubs Program (Social Studies, Science, HCE; all grade levels)

Personal and Social: the set of abilities that relate to students' identity in the world, both as individuals and as members of their community and society. This competency encompasses the abilities students need to thrive as individuals, to understand and care about themselves and others, and to find and achieve their purposes in the world.

Lesson Examples: Students can...

- learn about their own and peers food heritage/culture as well as food stories from First Nations groups; stories of celebrating with food, favourite recipes and food consumption in general through speaking with elders and family members (Social Studies, English; all grade levels)
- share their favourite potato recipes and create these meals with their class upon Spuds in Tubs harvest (Home Economics, Physical and Health Education; all grade levels).

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SUBJECTS	Primary (Grades K – 3)	Intermediate/Middle (Grades 4 – 8)	High School (Grades 9 – 12)
English	✓	✓	✓
Social Studies	✓	✓	✓
Science	✓	✓	
Mathematics	✓	✓	
Health & Career Education	✓	✓ (6-9)	
Career & Personal Planning			✓
Home Economics & Foods		✓	✓
Visual Arts	✓	✓ (6-8)	
Sustainable Resources			✓ (11-12)

FREE K-12 Unit Plans, Lesson Plans, and Handouts!

- For a more comprehensive list of ILOs and FREE Unit Plan and handout downloads, including our Spuds Log Book, please visit our website:

www.aitc.ca/bc

- Go to Programs, Spud in Tubs, Teacher Resources, Free Unit and Lesson Plans, click on your Grade Level and enjoy!

Spuds in Tubs

Stage 1.

Things you should know and do BEFORE SPRING BREAK

BEFORE PLANTING SEED POTATOES

1. Attend the workshop in your area.
2. Pick up materials for YOUR classroom:
 - 5 large black nursery tubs
 - 13 bags of soil
 - 25 Warba seed potatoes in special bag
 - 1 container of Potato Plant Food with a scoop inside (4 tbsp)
 - 1 Step by Step guidebook
 - 1 plastic drop sheet
 - 5 AITC rulers
 - 1 "Grow BC" map
 - 1 Class Set of "I Can Grow Food!" stickers
 - 1 related BC Agriculture in the Classroom Unit Plan
 - 1 Dig in for Dinner poster
3. Leave seed potatoes in their bag in your warm classroom to encourage sprouting.
4. Measure the sprouts. When they are 2 cm long (or longer), proceed to stage 2. Remove the biggest and most dominant sprout so the others will grow and give you more potatoes.



measuring up the sprouts on the potatoes

Spuds in Tubs

Stage 2.

Things you should know and do BEFORE SPRING BREAK

PLANTING SEED POTATOES IN TUBS

5. When planting in tubs indoors, lay the plastic drop sheet on the floor to protect the floor.
6. Empty one bag of soil into each tub.
7. Mix 1 scoop (4 tablespoons) of Potato Plant Food thoroughly into the soil for each tub.
8. Dig five small wells in the soil of each tub evenly in a circle around the tub, about 10 cm from the outside edge.
9. Place five seed potatoes into the small wells from step 8, sprouts facing UPWARDS.
10. Cover the potatoes with more soil from the tub.
11. Choose a cool, safe INDOOR location for the tubs.
12. Give your tubs a good drink of water.



place potatoes in tub like this



Stage 3.

Things you should know and do AFTER SPRING BREAK

GROWING & HILLING (Keeping the potato sprouts covered with soil)

Your students will be surprised to see how much their spuds have grown.

1. As the potato sprouts grow, add soil to cover most of the stem, leaving a few leaves from each sprout stretching above the soil.
2. Watch the potato sprouts daily. As they grow, add more soil around the stem.
3. Repeat steps 1 and 2 until the tubs are filled to the top with soil.

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watching the potatoes sprouts grow

Stage 4.

Things you should know and do AFTER SPRING BREAK

READY TO MOVE TUBS OUTSIDE

1. Measure plants. When the largest plant reaches 15 cm above the rim of the tub and weather permitting, proceed to step 2.
2. Sprinkle another scoop of Potato Plant Food on the top of the soil.
3. Gently scratch the surface to work it into the soil.
4. Move the tubs to a safe OUTDOOR location that includes:
 - a. A south-facing wall that will absorb heat and light from the sun
 - b. Protection from the wind
 - c. If a. and b. are impossible, perhaps a neighbor will keep them on their property in similar conditions
5. For the first week, loosely drape the drop sheet provided over the tender potato plants for the night to protect them from frost. Be sure to remove the sheet during the day to avoid burning the plants from direct sunlight.



measuring the potato plants

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Stage 5.

Things you should know and do AFTER SPRING BREAK

SPUDS IN TUBS LIVING OUTSIDE - When to water?

1. Check to see if the plants are dry by feeling the soil or observing if the soil is pulling away from the side of the tub.
 - Wilted potatoes will slow down production, so water well when the pots are dry.
 - If there is water running out of the drainage holes, the plants have enough water.
 - A fun way to check if the tubs need water is to have your students plunge a finger into the soil being careful not to harm the plants. If their finger comes out with soil stuck to it then the tub should not need water. If their fingers are clean then the soil is dry and it is time to water the tubs.
2. Have your students check to see what other creatures have made the tubs their home. e.g., under the tubs, on the plant etc.

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ladybug



aphids



ant



earth worm



watering.....and other creatures

Stage 6.

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Things you should know and do BEFORE SCHOOL ENDS

READY TO HARVEST (early to mid June)

1. You will know it is time to harvest because the plants will wilt and turn yellow.
2. If the plants do not wilt and turn yellow, you will still have to harvest them.



harvesting the potato plants

Stage 7.

Things you should know and do BEFORE SCHOOL ENDS

HARVESTING

1. Lay out the plastic drop sheet on the ground.
2. Tip the tubs onto the plastic sheet.
3. Count the number of spuds in your tubs!
4. See if the students can find their original seed potato.
5. The leftover soil can be added to existing shrub beds in a sunny location around the school in anticipation of the "Planting a Promise" Program.
6. Wash the tubs and put away to re-use next Spring.

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harvesting the potatoes

Stage 8.

Things you should know and do BEFORE SCHOOL ENDS

ENJOYING THE HARVEST!

1. Wash the potatoes thoroughly, scrubbing off all the soil.
2. Steam or boil the potatoes until they pierce easily with a fork.
Keep warm in a crock pot if you need to delay eating.
3. Add butter. Serve and enjoy!



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enjoying the harvest!

Please place a photo of your students showing their involvement with Spuds in Tubs



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Report to BC Agriculture in the Classroom

(This report must be completed and submitted by July 15th of each school year via email, fax, or standard mail to contact person named in this guide book if you wish to qualify for future participation.)

School Name: _____

School Address: _____

Teacher Name: _____ **Grade Level:** _____

Harvest Totals: (including big and small) _____

Summary of the Spuds in Tubs Growing Experience

How did you tie this program to your curriculum? (use other side if more space needed)

List specific subjects covered, ILOs covered, lesson ideas.

Were there any obstacles faced?

Include suggestions on how we can improve this program.

Can you share any wonderful moments throughout your journey?

Student responses, Ah-ha moments, pictures from the program.

Fax: 1-877-825-6068 or email Glenda@aitc.ca

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For more programs and other teacher resources visit:

aitc.ca/bc

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