

# Vegetables, Farmers and You

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B.Ed

British Columbia Agriculture  
in the Classroom Foundation  
Summer Institute 2006 Unit Plan  
For Grade One



Summer Institute 2006 was sponsored by:

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## Summer Institute for Educators

This document is the result of the author's participation in the BC Agriculture in the Classroom Foundation's Summer Institute for Educators. This third year level course in curriculum design is offered through the University of British Columbia's Faculty of Education's Office of External Programs.

Participants (up to 20 educators from Kindergarten to Grade 12) spend one week at the Montfort House Rural Resource Centre situated on Vancouver Island. Here they develop a number of practical teaching strategies for their classrooms using examples drawn from the agricultural, environmental, economic and nutritional concepts featured in the BC Integrated Resource Packages for their particular grade or subject area.

The agricultural community sponsors participants for the costs of learning resources, meals, tours and accommodation.

Participants taking the course for credit create teaching modules such as this to share with other educators from around the province.

Applications can be made on the BC AITC website at [www.aitc.ca/bc](http://www.aitc.ca/bc).

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## Unit Overview

This unit about vegetable production is written for primary students (grades 1-2). It was inspired by my experiences on Oyster River Farm, organized by the BC Agriculture in the Classroom Foundation. The goal of this unit is to help students to create meaningful, informed connections between the vegetables that they eat and the agricultural process involved in producing them. Through the use of the vegetable theme, the unit covers a basic knowledge of plant growth needs, soil as growth medium, human nutritional requirements, and exposes students to the basic role and skills of farmers. The material is presented at a basic, accessible level for the young students. The unit is designed to provide students with a rich variety of “hands-on” experiences by using a variety of different materials and lesson formats (a farm field-trip, science experiments, a critical thinking challenge, pictures, plants, cooking experiences, folk tales and drama). I have included some suggestions and worksheets in French to be used in French Immersion classes.

Vegetables grow very well in the cooler, wetter climates of the Fraser Valley. They compose a large part of a healthy diet. BC farmers are able to grow a large variety of vegetables. BC has dedicated 7,277 ha of arable land for vegetable production (Grow BC, 2002). Many cucumbers, tomatoes and peppers are produced in greenhouses in the Fraser Valley (BCAITC, 2001). With such a wealth of vegetable production in the Fraser Valley, I chose to use vegetables as the means to connect students to local agriculture and farmers.

The unit incorporates learning outcomes from many different subject areas including math, science, social studies, personal planning, and language arts. Each lesson is designed to build on topics and knowledge discussed in the previous lesson. In order to help students to build stronger connections between the food that they eat and agriculture, I have included several food tasting and cooking experiences (ex. lesson 1- veggie tasting test, lesson 8 - hummus and vegetables, culminating lesson - making Stone Soup).

I hope that you find this unit meaningful, easy and fun to use!

Christina Custer, B.Ed.

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## Rational

We live in an affluent consumer society where our environment and food are taken for granted. Food is something that is conveniently available for purchase at the local grocery store. We are able to import exotic products from a round the globe and eat many fruits and vegetables any time of the year. There is a growing rift dividing consumers from food producers as well as the “have” and “have-not” societies around the world.

Wendell Barry, a romantic farming enthusiast, poet and writer, firmly believes that “most shoppers do not know where their food comes from...or what knowledge or skills are involved in farming” (Barry, 1990). He supports the need for education and reconnection with agricultural systems and communities and suggests that “consumers” need to be transformed into co-creators and become “active participants in agriculture” who claim responsibility for their part in agriculture (Barry, 1990).

Children are growing up with a lack of connection with their food and many misconceptions about agriculture. “Elementary school children interpret the (agricultural) industry as the farmer, the cow, the tractor, the rancher and many other stereotypes” (DeWerff, 1989). Considering that they play an essential role in sustaining human populations, farmers and people working in the agri-food industry deserve respect and understanding from children, adolescents and adults. “Today's children tend to be a more urban-oriented generation. Many of them have little understanding of the opportunities available within our agriculture industry. Children must be exposed to the necessity of sustainable agriculture practices to ensure that the future of our food supply is secure” (Ag. Ed. PEI).

The consumption of junk and processed foods is on the rise resulting in increased incidence of childhood obesity and diabetes.

*“Nearly one-in-three Canadian children is overweight or obese and obesity rates have tripled over the last thirty years. For children born in 2000, one-in-three will likely get diabetes sometime over the course of their lifespan and many more of them are getting it as children, teens and young adults. The epidemic of childhood obesity in Canada and around the world threatens to be the major public health problem of the new century” (Finegood & Dubb, 2006).*

This is a very scary path for Canadian society to be following. Our health is very closely linked to what we eat. We need to find ways to strengthen our missing links between what we eat and our food-producing systems. These systems are under constant threat (by population pressures, world markets, labour issues etc) and need to be protected rather than taken for granted.

Education is a key place to begin. With the greater goal of agricultural literacy in mind, I developed this vegetables unit with the purpose of providing young primary students with basic knowledge of healthy food and where it comes from. Most children have been exposed to vegetables and hence can relate to this common theme. I have included a basic coverage of the biological processes involved in producing vegetables and have also tried to provide a connection to the farming community. Another objective of this unit is to

promote healthy eating habits and to teach food preparation skills. Through the use of farming folk tales and the “stone soup” food celebration, I hope to expose students to the community-building powers of communal eating and farming. The lessons include many different “hands-on” experiences to enrich the learning experiences and to make abstract concepts more tangible. The unit involves developing a partnership with a farmer. I believe that the personal connection with a real person (farmer) and farm will enable the students to create real life connections and experiences to relate their knowledge to.

The unit covers many different subject areas. Although I have specifically linked the unit to learning outcomes in the Grade 1 curriculum, these connections can be extended to the Kindergarten, Grade 2 and Grade 3 curriculums. The unit covers learning outcomes from many different subject areas including math (sorting, graphing and data analysis), science (the needs of living things), social studies (our environment and community), personal planning (healthy living) and language arts (use of stories and drama). I have found that the cross-curricular, theme-linked unit style works well in primary classrooms.

I believe it is just as important for the teacher to be connected to agriculture as the students that he/she is teaching. I strongly encourage the teacher to meet and spend some time with the farmer who will provide the link to a real farm experience. The greater this connection is, the richer the field-trip experience will be for the students. I recommend teaching this unit during the early fall harvest season since the closing activity (making “Stone Soup”) involves harvesting vegetables.

## **Bibliography**

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- DeWerff, W. (1989). Education in Agriculture: Not just a high school matter. *The Agricultural Extension Magazine*, 62, 1, 14-15.
- Finegood, Dr. D. & Dub, Dr. L. (2006, November 25). Time to act on Childhood Obesity. *Beacon Star*. Retrieved January 22, 2007, from <http://www.parrysound.com/voice/1164380715/>.
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## Relevant Grade 1 Prescribed Learning Outcomes

### **Science IRP's**

#### *Processes and Skills of Science*

- Communicate their observations, experiences, and thinking in a variety of ways (e.g. verbally, pictorially, graphically)
- Classify objects, events and organisms

#### *Life Sciences: Needs of Living Things*

- Describe the basic needs of local plants (e.g. food, water, light)
- Describe how the basic needs of plants are met in the environment

#### *Earth and Space Sciences*

- Describe changes that occur in daily and seasonal cycles and their effects on living things

### **Social Studies IRP's**

#### *Society and Culture*

- Describe differences between individual needs and wants
- Identify some characteristics of their community

#### *Economy and Technology*

- Identify different occupations in their community
- Describe the role of technology in their lives

#### *Environment*

- Demonstrate an awareness of natural and human-built environments
- Describe how they interact with different environments
- Practice responsible behaviour in caring for their immediate environment

### **Math IRP's**

#### *Statistics and Probability*

- Sort objects to one attribute chosen by themselves or the teacher
- Collect first-hand information by conducting surveys
- Compare data using appropriate language, including quantitative terms
- Pose oral questions in relation to the data gathered

### **Personal Planning IRP's**

#### *The Planning Process*

- Identify people and organizations that support children
- Relate consequences to actions and decisions

#### *Healthy Living*

- Identify foods and activities that contribute to good health
- Demonstrate an awareness of the influences of family on their attitudes and values regarding healthy living

## Lesson 1 – Can You Name Your Vegetables

(Unit Introduction - Vocabulary development and graphing our preferences)

### **Objectives (students will be able to...)**

- Share prior student experiences with vegetables and knowledge of different types of vegetables
- Use the proper names of common vegetables
- Create and analyze a class graph indicating student preferences

### **Materials**

Chart paper, markers

Student chart pieces (see black line master 1)

5 fresh vegetables (cleaned, chopped and ready to eat)

Vegetable picture and vocabulary cards

### **Lesson**

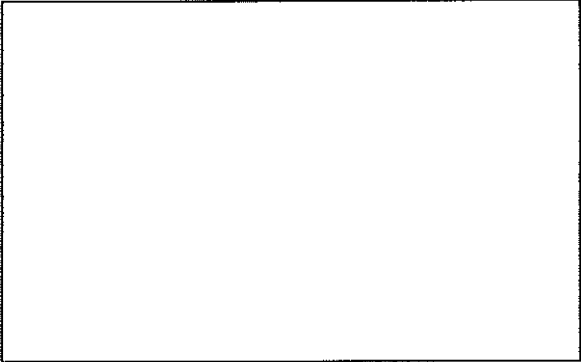
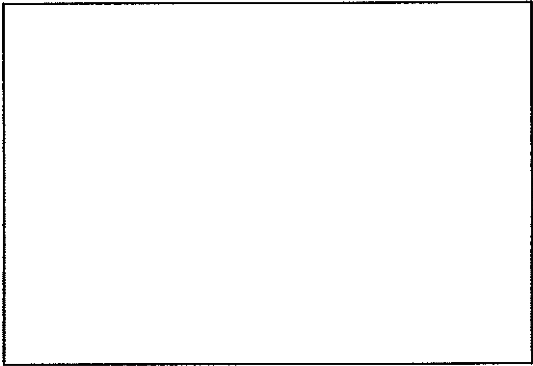
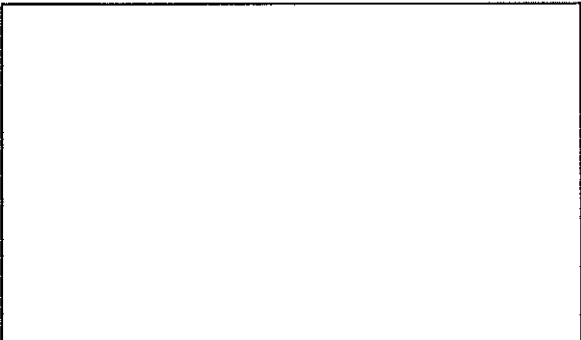

1. (think/pair/share strategy) Ask the students to close their eyes and to imagine all of the different vegetables that they can remember. They share their vegetable ideas in partners. As a whole group record as many different names of vegetables that the students can remember on a chart paper.
2. Present the picture cards of vegetables, hiding the names. Ask the students to identify as many pictures as possible. Uncover and go over the vocabulary and pictures.
3. *Veggie Taste Test:* Present 5 different common vegetables to sample. The students identify the vegetables and then sample each type. They choose their favorite vegetable and record it on their student graph paper (vegetable name, their name and a small picture). Students glue their pieces onto a class graph under the correct vegetable.
4. *Closure:* Discuss the class graph results and student preferences.

### **Extensions**

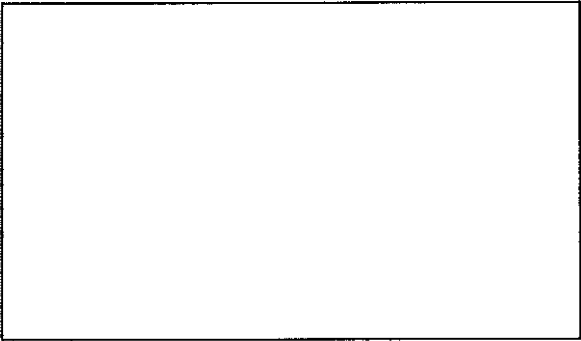
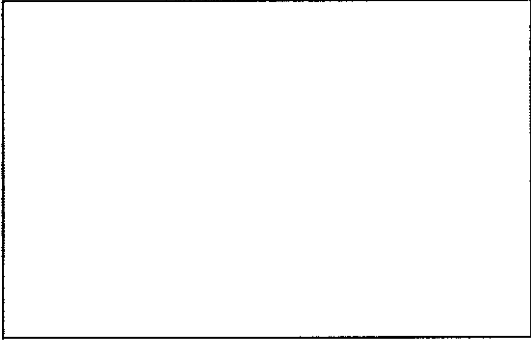
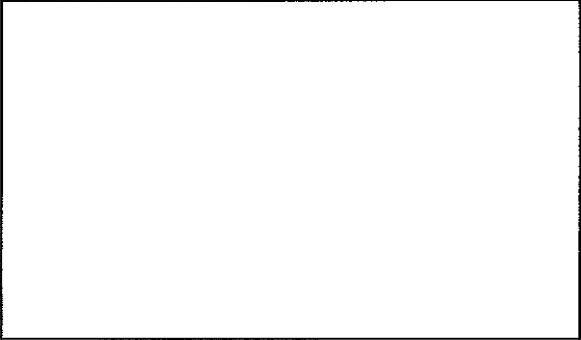
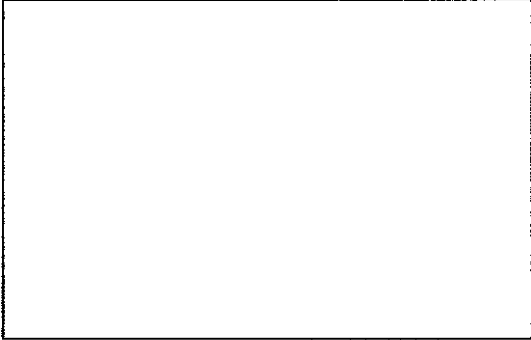
1. Students can create their own versions of the class graph.
2. Do a fruit sample taste test and create another class graph. Compare and contrast the two class graphs.



*Lesson 1 (Vegetable taste test)*

<p>(name)</p> <p>likes to eat ...</p> 	<p>(name)</p> <p>likes to eat ...</p> 
<p>(name)</p> <p>likes to eat ...</p> 	<p>(name)</p> <p>likes to eat ...</p> 

*Lesson 1 (Vegetable taste test – French)*

(nom) aime manger...	(nom) aime manger...
	
(nom) aime manger...	(nom) aime manger...
	

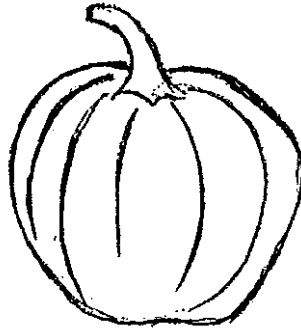
# Vegetables

1



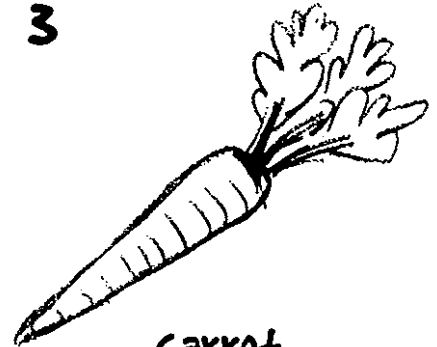
potato

2



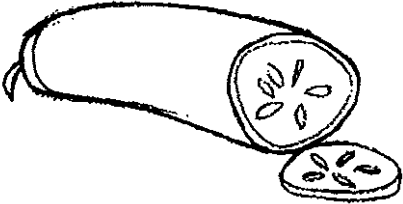
pumpkin

3



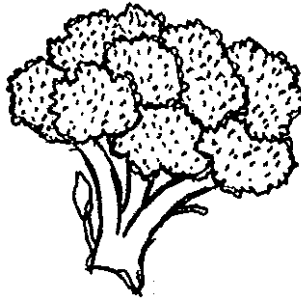
carrot

4



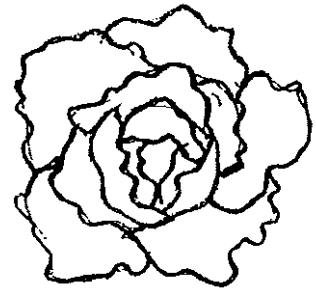
cucumber

5



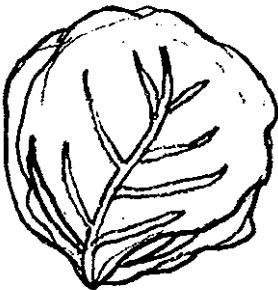
broccoli

6



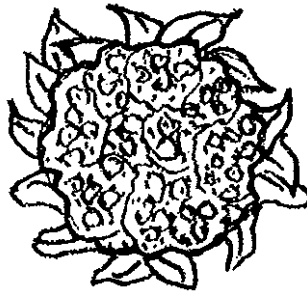
lettuce

7



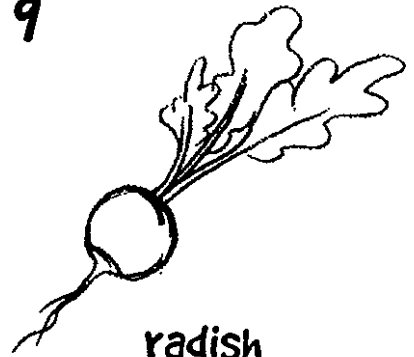
cabbage

8



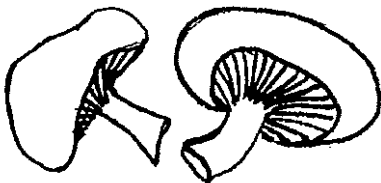
cauliflower

9



radish

10



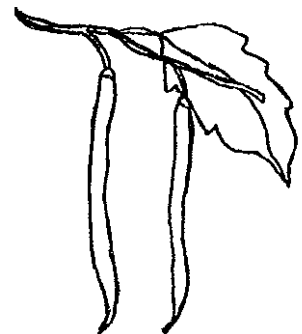
mushroom

11



sweet pepper

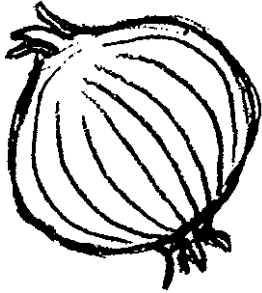
12



beans

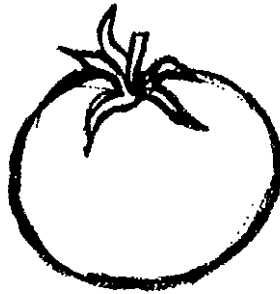
# Vegetables

13



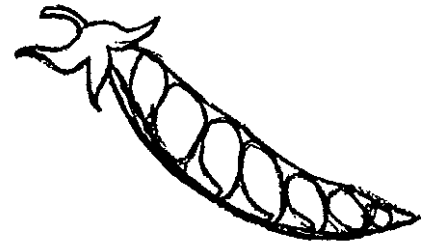
onion

14



tomato

15



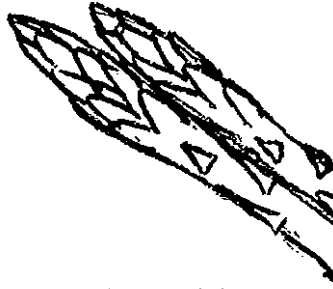
peas

16



spinach

17



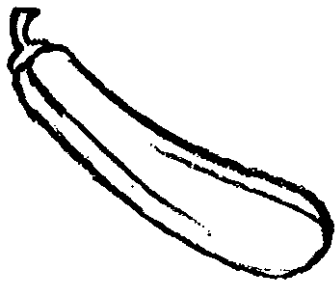
asparagus

18



corn

19



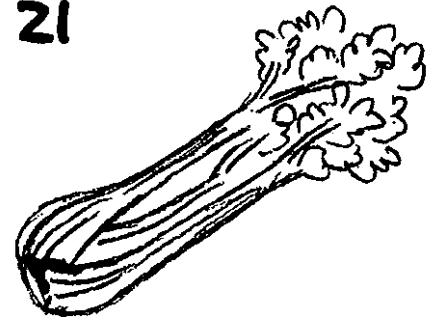
ZUCCHINI

20



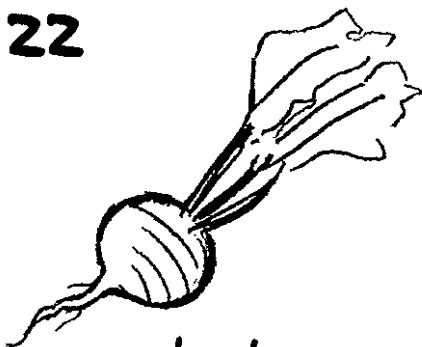
eggplant

21



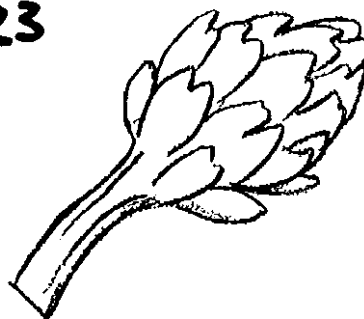
celery

22



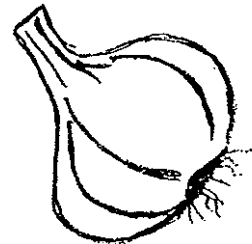
beet

23



un artichaut

24



garlic

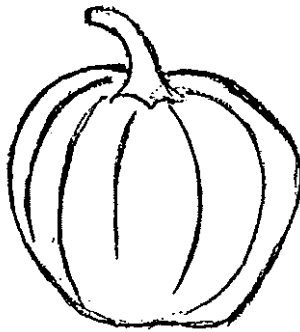
# Les Legumes

1 Une patate



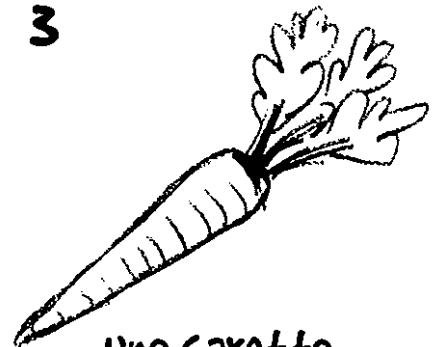
Une pomme  
de terre

2



potiron

3



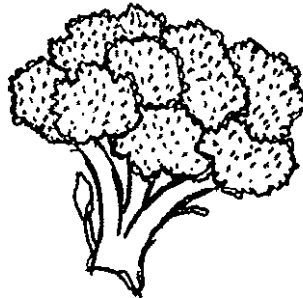
Une carotte

4



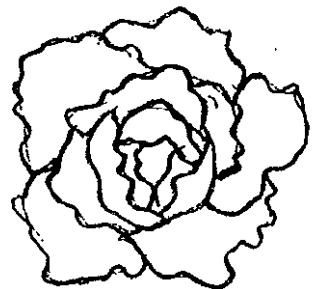
un concombre

5



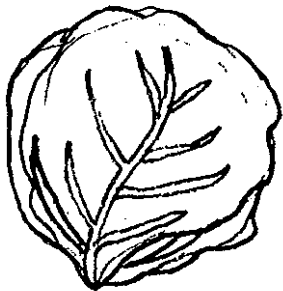
un brocoli

6



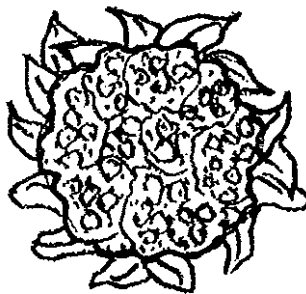
une laitue

7



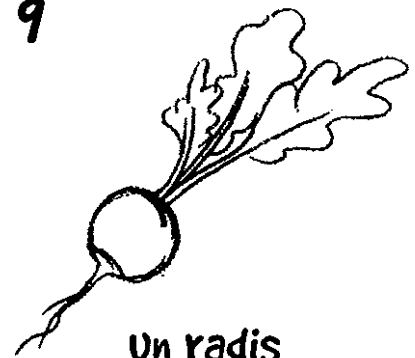
un chou

8



un chou-fleur

9



un radis

10



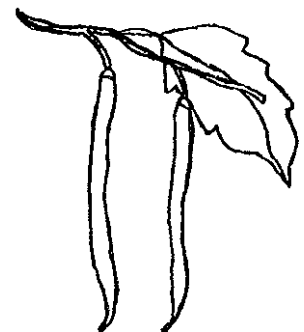
des Champignons

11 (un piment)



un poivron

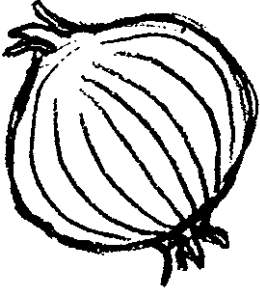
12



des haricots

# Les Legumes

13



Un oignon

14



Une tomate

15



des pois

16



des epinards

17



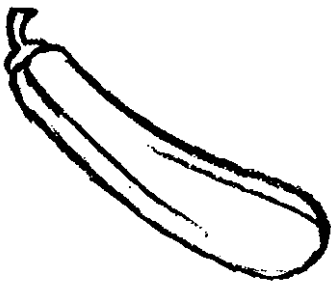
des asperges

18



du mais

19



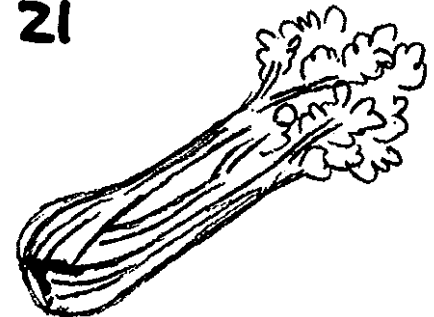
Une courgette

20



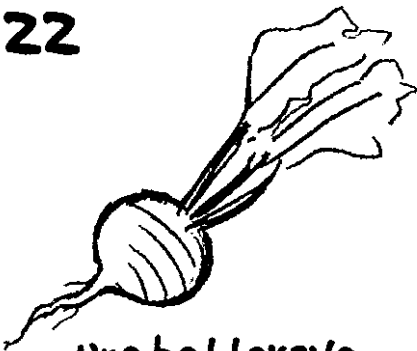
Une aubergine

21



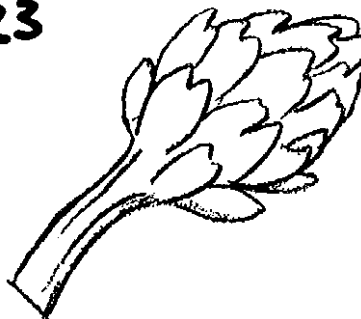
de celeri

22



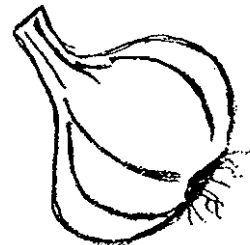
Une betterave

23



Une artichaut

24



l'ail

## **Lesson 2 - How Do Vegetables Begin?**

(Seeds, Tubers and Bulbs)

(Science)

### **Objectives (students will be able to...)**

- Associate grown plants with their seeds/bulbs/tubers of origins
- Differentiate between seeds, tubers and bulbs
- Make and record predictions and observations

### **Materials**

Story book, "The carrot seed"

Visuals and real examples of seeds, tubers, bulbs

Fresh vegetables (beans, cucumbers, tomatoes, potatoes, peppers, onions)

Knife, cutting board

Mystery vegetable seed samples

Student prediction/observation page

### **Lesson**

1. Review vegetable names and pictures. (use vocabulary cards).
2. Ask students, "Where do our vegetables come from?"
3. Read "The carrot seed".
4. Discuss the growth of the carrot seed into a full-grown carrot as described in the story.
5. Present vocabulary while referring to pictures and real life examples (tubers, bulbs and seeds).
6. *Mystery seeds*: Present 5 different mystery seeds labeled A-E and 5 vegetables to be matched with the seeds.
7. Students predict which seeds match which vegetables and record their predictions.
8. Cut open the vegetables and show the students the seeds found within. Match these seeds with the correct mystery seed samples. The students record their observations and compare the results with their original predictions.

### **Extensions**

1. Do a seed sort (size, type, colour, texture).
2. Do a Lima Bean dissection to see what is inside a seed. (Reference, *Beans and Their Buddies*, "What is inside a seed?")

*Lesson 2 Mystery Seeds*

	<b>My prediction</b>	<b>Observations <i>Seed Identity</i></b>	<b>Was my prediction correct?</b>
<b>Seeds A</b>			yes / no
<b>Seeds B</b>			yes / no
<b>Seeds C</b>			yes / no
<b>Seeds D</b>			yes / no
<b>Seeds E</b>			yes / no



**Lesson 3 - Plants Need Water and Sunshine to Grow (two simple experiments)**  
(Science)

**Objectives (students will be able to...)**

- Identify the basic living needs of plants
- Make and record predictions and observations
- Explain what they observe in simple plant experiments

**Materials**

Experiment A

Celery stalks with leaves  
Red and blue food colouring drops, water  
Plastic cups  
Prediction/observation sheets  
Magnifying glasses

Experiment B

2 small live plants in small pots  
A paper bag  
prediction/observation sheets

**Lesson**

1. Discuss our basic human living needs with the students (shelter, food, air, water etc.). Record the responses.
2. “What do plants need to live”? Discuss and record answers (soil, water, CO<sub>2</sub>, minerals and nutrients, microbes, sunshine).
3. Compare and contrast human and plant basic living needs.
4. “Today we will look at two basic plant living needs; water and sunshine. We will do two different experiments to observe the effects that water and sunshine have on plants”.

Experiment A

1. Students are asked to predict what will happen to celery stalks with attached leaves when they are placed into coloured water. Students record their predictions.
2. Each student places the celery stalk into coloured water in a cup and sets it aside for at least 30 minutes. (Set up experiment B in the meantime).
3. *30 minutes later* – Students observe the colour of the vascular bundles (groups of cells responsible for water transport) in their celery. The water movement in is similar to liquid moving up fine straws. The coloured water has moved up through the vascular bundles in the stalk and can also be seen in the veins on the leaves. Show the students how to break their celery stalks to better observe the coloured stringy parts. They may enjoy taking a closer look with a magnifying glass. Ask the students to record their observations and to compare their results with their predictions.

### Experiment B

1. Label a plant "A" and the other plant "B" or have the students create a name for each plant. The students then make a prediction of what will happen to plant B if it is covered for 1 week with a paper bag. They record their predictions.
2. Cover plant B and place both plants near a light source (window sill) and leave them for 1 week.
3. *1 week later* – Remove the paper bag from plant B and compare the appearance of the two plants. How can we tell if the plants are healthy? (i.e. healthy green leaf and stem colour, looks well-watered, smells fresh). Ask the students to draw both plants 1 week later and to make some conclusions about the differences between the two plants. They can compare their drawings with their predictions from the previous week. What have we learned about the needs for plants? (sunshine, light).
4. *Discussion:* Review our observations from both experiments. What did we learn about plant needs? (Water and sunshine in particular). How are our living needs similar/different from the living needs of plants?

**Lesson 3 – Experiment A - How Does Water Travel in Plants?**

<b>My predictions</b>	<b>My observations</b>



**Lesson 3 - Experiment B - Do Plants Need Sunshine?**

	Plant _____ <b>with sunshine</b>	Plant _____ <b>without sunshine</b>
<b>Day 1</b>		
<b>Day 3</b>		
<b>Day 7</b>		

## Lesson 4 - Plants Need Food (Basic Soil Nutrition)

### Objectives (students will be able to...)

- Explain the characteristics of soil
- Compare and contrast fertile and non-fertile soil

### Materials

Sandy, sterile, dry soil

Fertile, moist soil with a high organic matter content (ex. a rich loam)

Pictures of helpful soil organisms

2 mason jars with water

Spoons for stirring

Pots

Blank paper for 'healthy soil pictures'

A graduated cylinder to measure water volumes

### Lesson

1. Review the needs for basic healthy plant growth (water, sunshine, air, soil, nutrients).
2. What is soil made up of? (Think, pair, share). Accept all student responses. Today we will discuss the components of healthy soil (clay, sand, organic matter, soil organisms).
3. How does a plant find water and food? (with its roots, from the rain, ground or soil).
4. Soil texture: Begin with dry soil samples (sand and loam). Ask the students to feel the two different soil types. Ask them to describe the similarities/ differences. Add water to the soil samples and invite the students to feel the samples again by rubbing it between their fingers. How does it feel? (smooth, gritty, slimy). See if they can create a "ribbon" or a "worm" with both soil types.
5. Soil drainage: Put the two different dry soil samples into pots suspended over a clear catching bowl. Pour water into the two different samples and compare the speed at which the soils drain water. Which soil type holds more water?
6. Soil particles: Put ~3-4 tablespoons of soil into each mason jar. Add water until the jars are  $\frac{3}{4}$  full. Close and shake the jars vigorously. The students can watch the particles settle. The sand particles settle quickly, the clay particles remain suspended in the water and the organic matter will eventually settle to the bottom of the jar on top of the sand layer. Let the jars rest for another 20-30 minutes to allow most of the soil particles to settle.
7. Soil critters: Ask students which types of critters live in the ground? "There are many different living soil organisms that we cannot see. Here are some of the most helpful soil critters. (Show pictures). Do you know any of their names?" Introduce each soil critter and tell the student a little bit about it.
8. Ask the students to do an enlarged picture of healthy soil that they would like to use to grow plants in. Ask them to include soil particles, water, soil organisms and anything else that they think is important.

**Extensions:** There are many soil science related activities in "Soil Secrets".

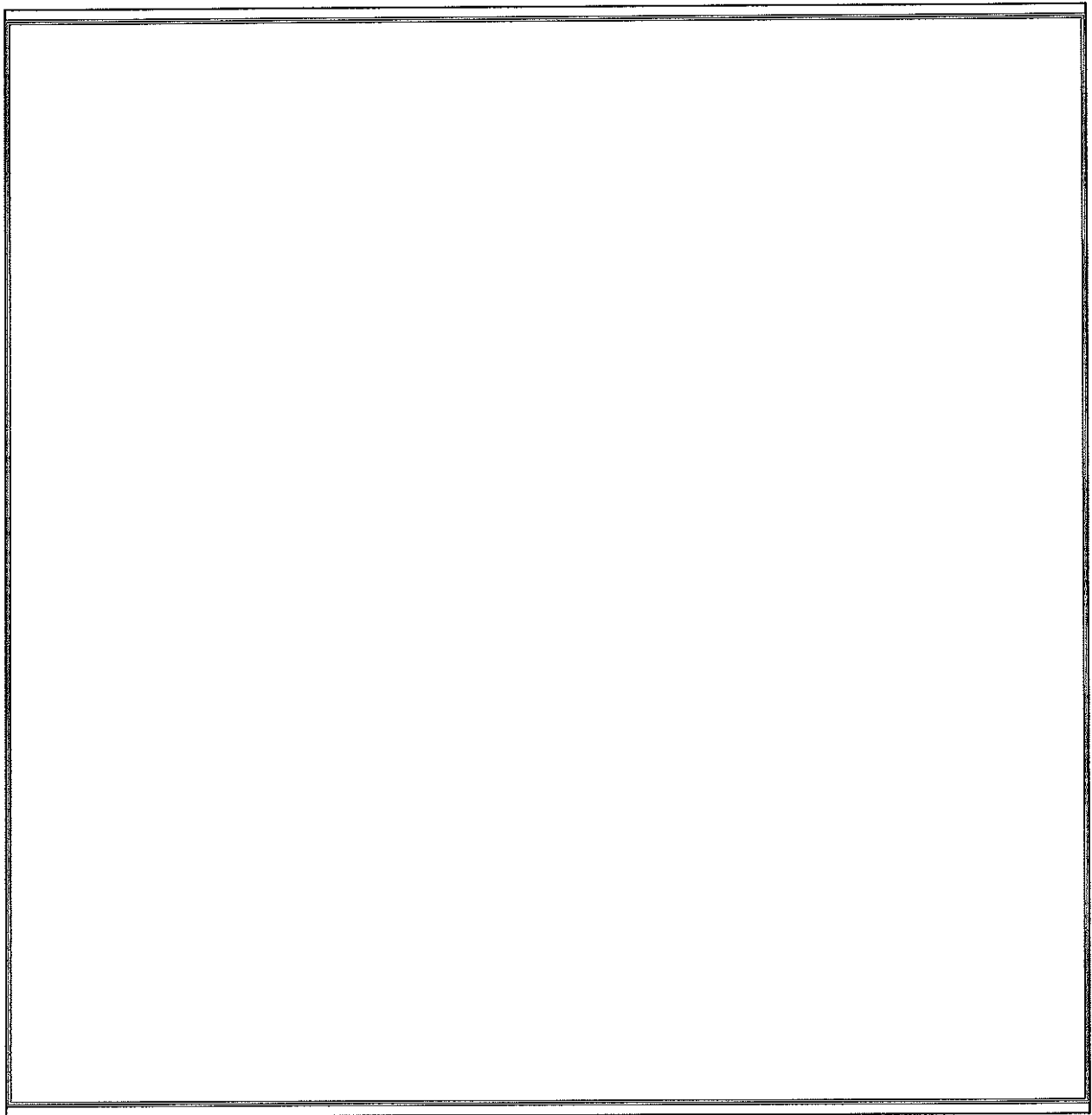
## Lesson 4 - Healthy Soil

Here is my picture of healthy soil. This soil will help plants to grow.

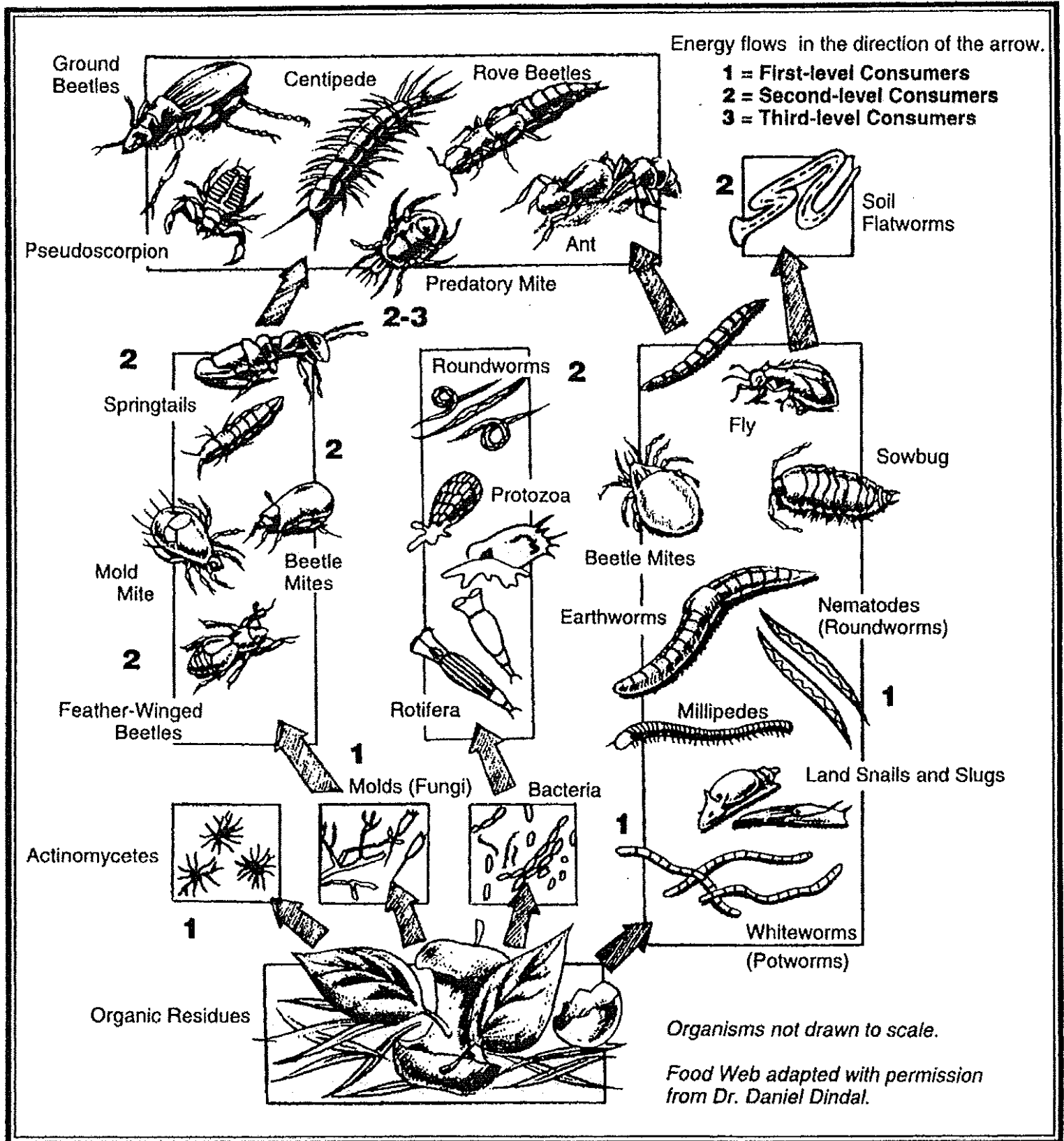
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# REFERENCE MATERIAL: DECOMPOSERS



## FOOD WEB OF THE COMPOST PILE

From the Compost Resource Manual GVRD/ B.C. Environment

## **Lesson 5 – Name the Parts of the Plant** (Drama, Science)

### **Objective (students will be able to...)**

- Identify the basic parts of a plant (roots, stem, leaves, etc.)

### **Materials**

A variety of live plant samples (weeds work very well and are readily available)

Large diagram of a plant

Student plant labeling worksheets

Props and labels for parts of the plant

*(Optional- felt board cut outs with labels for the different plant parts)*

### **Lesson**

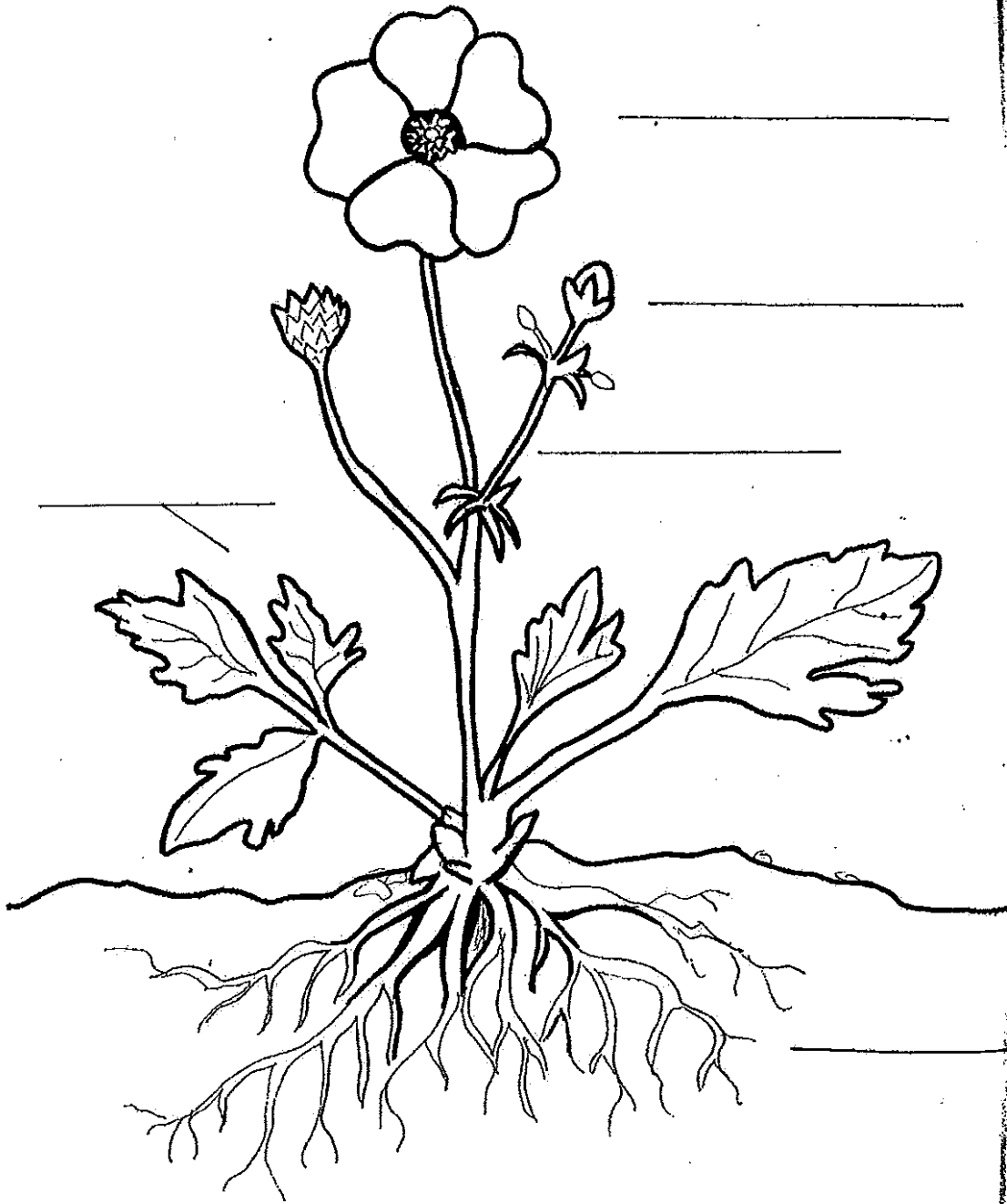
1. Show the different live plant samples and ask students which parts that they can identify. Invite them up to point to the plant parts. Compare and contrast the different types of leaves, stems, roots and flowers.
2. “We will be constructing a human model of a plant by adding all of the different plant parts together”. Invite students up to represent different plant parts with their bodies. Give them any relevant props as well as the plant part labels to help them to act out their parts.
3. Students are divided into groups of 5 students and are asked to replicate the plant model that was just created as a class. Give each group a set of plant part labels. Each group creates a human-plant model and presents their model to at least one other group.
4. Using the large diagram, model labeling the diagram. The students label and colour in the parts of their plant diagram.

### **Extensions**

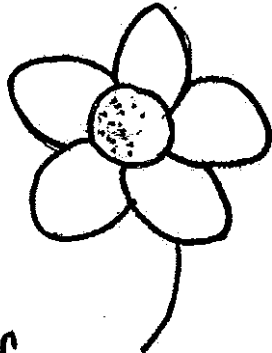
1. Students can create their own imaginary plant and label all of the parts of their plant.
2. Students can construct a model of a plant using paper (petals and leaves), a pipe cleaner (stem) and string (roots).



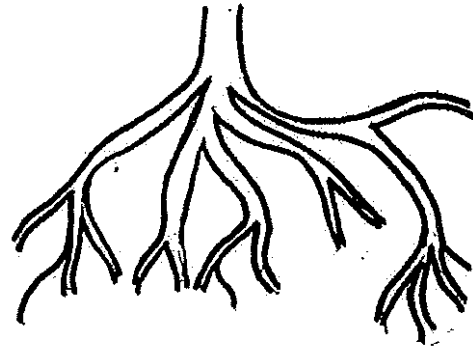
# Une plante



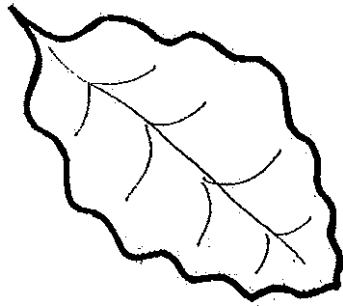
Ann Rainboth, Les Plantes, BCF Lesson Aids



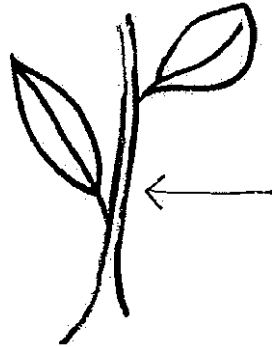
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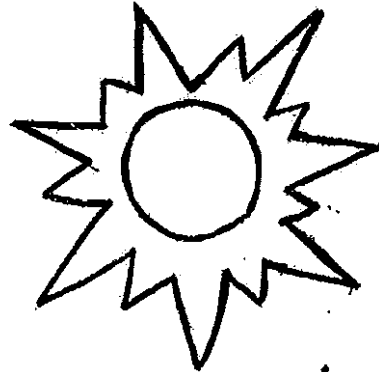
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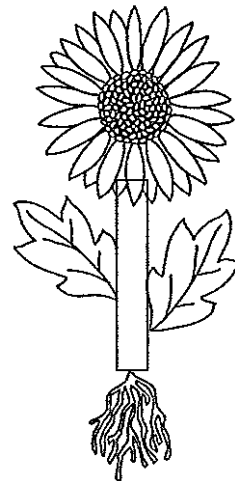
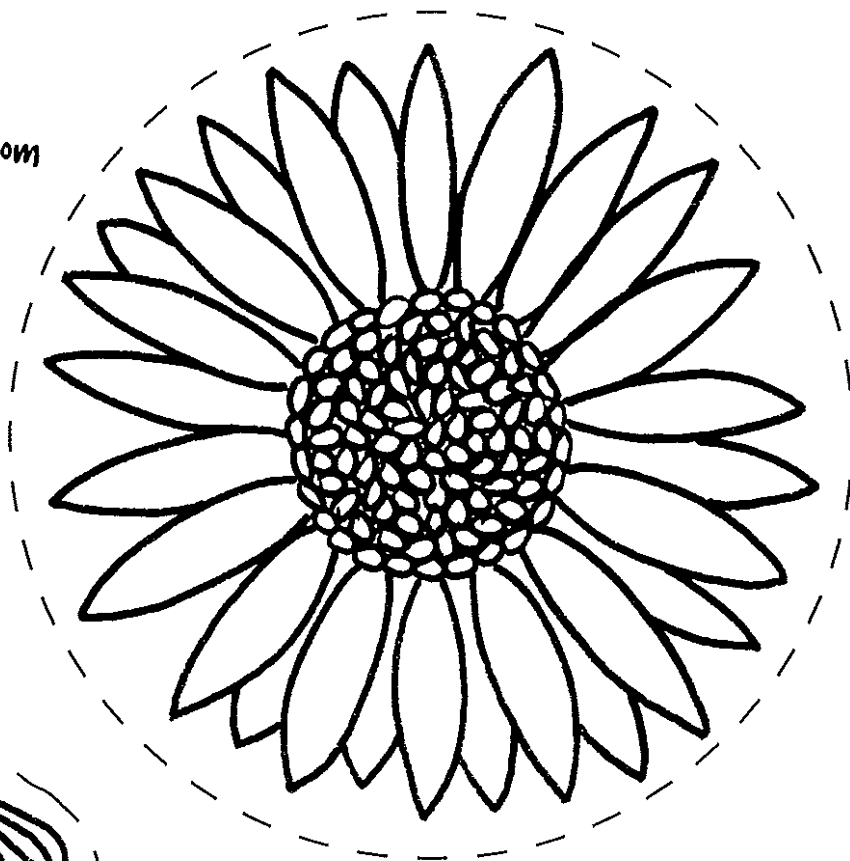


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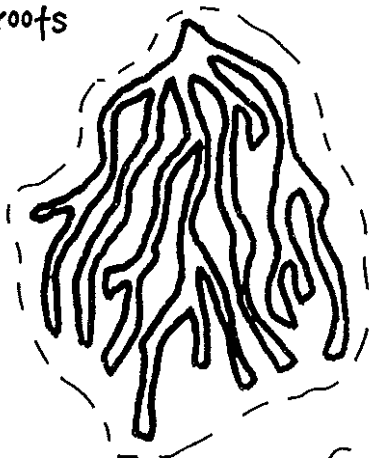
Ann Rainbooth, Les Plantes, BOTF Lesson  
Aids

# Flower Part Patterns

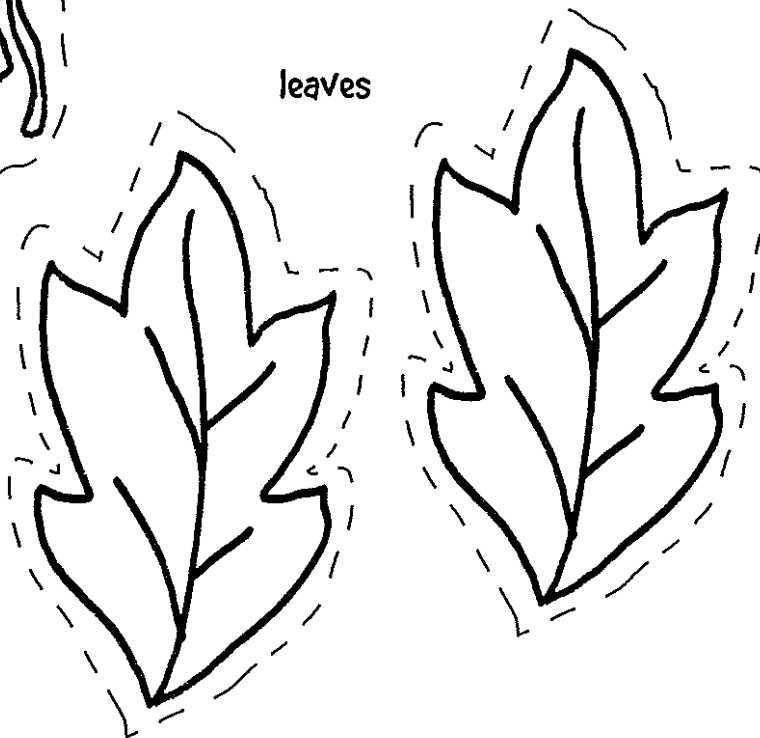
flower blossom



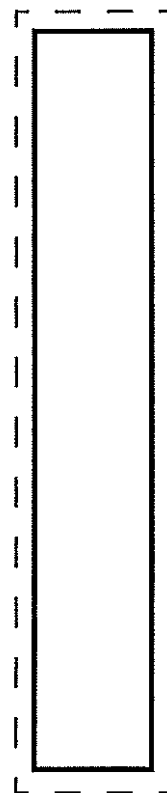
roots



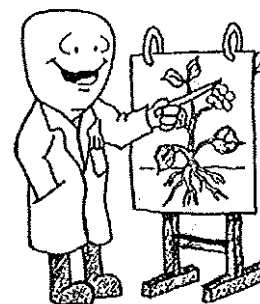
leaves



stem



## The Parts of a Corn Plant



Label the four main parts of this corn plant.

Label the plant's seeds too.



**Lesson 6 – Which Part of the Plant am I?**  
(Science)

**Objective (students will be able to...)**

- Identify which plant parts that we eat as vegetables

**Materials**

Storybook, “Tops and Bottoms”

Vegetable samples to eat

Worksheet (drawing examples of vegetables which are flowers, stems, roots, leaves, etc.)

**Lesson**

1. Review the names of the parts of a plant.
2. Present 5-6 different vegetable samples (ex. corn, peas, spinach, broccoli, potatoes, carrots). Ask the students if they can guess which parts of the plant we eat when we eat each of these vegetables?
3. Introduce the story: “I will read a story about a clever rabbit who teaches a lazy bear about the parts of a plant which are edible”. Read the storybook, “Tops and Bottoms” out loud.
4. Pause throughout the story. Discuss which plant parts that the clever rabbit harvests and which parts that he leaves for the lazy bear.
5. Refer back to the 5-6 vegetable samples. Ask the students to think about what they learned in the story and if they can properly identify which plant part the vegetables come from.
6. On their worksheet, the students are asked to draw 2-3 examples of each plant part that we can eat. Remind them to think back to examples that we saw in the story.
7. Taste testing: Offer the students the chance to taste different plant parts (spinach leaves, carrots – tubers, broccoli – flowers, corn-seeds etc...)

Lesson 6 – Which Plant Parts Do We Eat?

Draw and name two examples of each vegetable plant parts that you can eat.

<b>leaves</b> eg. cabbage leaves	<b>seeds</b>	<b>flowers</b>
<b>bulbs</b>	<b>tubers</b>	<b>stalks</b>

**Lesson 7 - Critical Thinking Challenge – Is it a Fruit or a Veggie?**  
(Social Studies and Math)

**Objectives (students will be able to...)**

- Differentiate between fruits and vegetables

**Materials**

Chart paper and felts

French “Tomato” story

Visuals examples of different fruits and vegetables (use food fliers)

A tomato (prop)

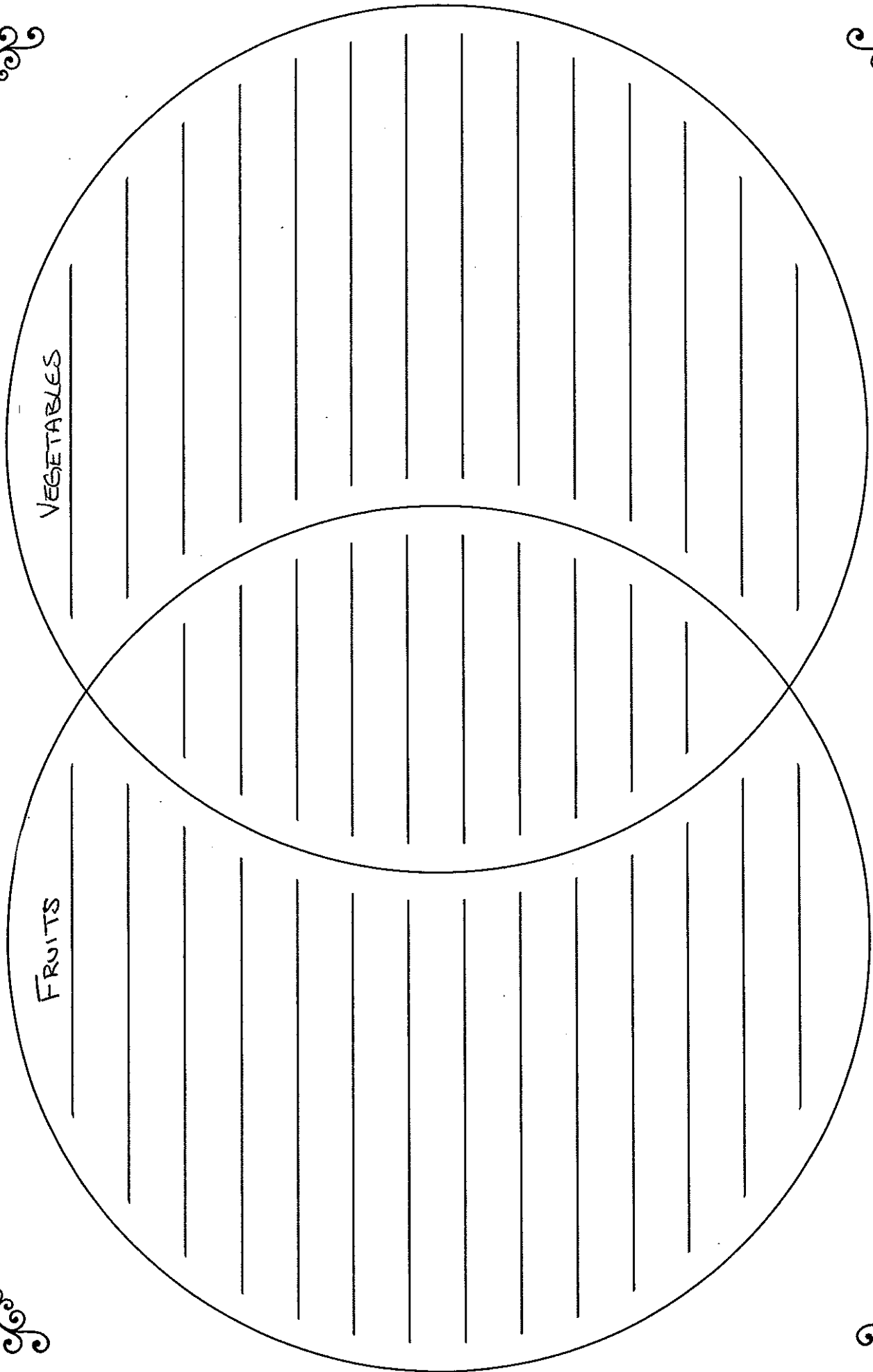
Venn Diagram worksheet (enlarge to 11 x 14)

**Lesson**

1. Ask students for examples of different (1) fruits and (2) vegetables that they know.
2. How do we know if each of these examples is a fruit or a vegetable? What is the difference between these two groups?
3. How are vegetables and fruits similar/different? Record student answers on a chart or Venn diagram.
4. Present the case of the tomato. Is it a fruit or a vegetable?
5. Read the story “tomato”. Discuss the story events. How did the tomato solve its problem?
6. As a class discuss and determine a set of criteria for determining if something is a fruit or vegetable.
7. In partners or small groups (3-4), ask the students to sort cut out pictures of fruits and vegetables and to glue them onto a Venn diagram.
8. Groups present their sorting to the whole class. Discuss the placement of different pictures. Which fruits/vegetables are we unsure about? Why?

**Extension**

Students can develop other sets of criteria to sort other food types into groups.





**Lesson 8 – Who Grows My Vegetables? Meet the Farmer.**  
(Social Studies – Members in the Community)

**Objectives (students will be able to...)**

- Identify the role of the farmer in food production
- Identify the basic growing needs of crops

**Materials**

Story, “La Grande Patate” or “The Great Big Turnip”

Song, “The farmer and the dell” or “Inch by Inch, row by row”

French song alternative, “Savez-vous planter les choux?”

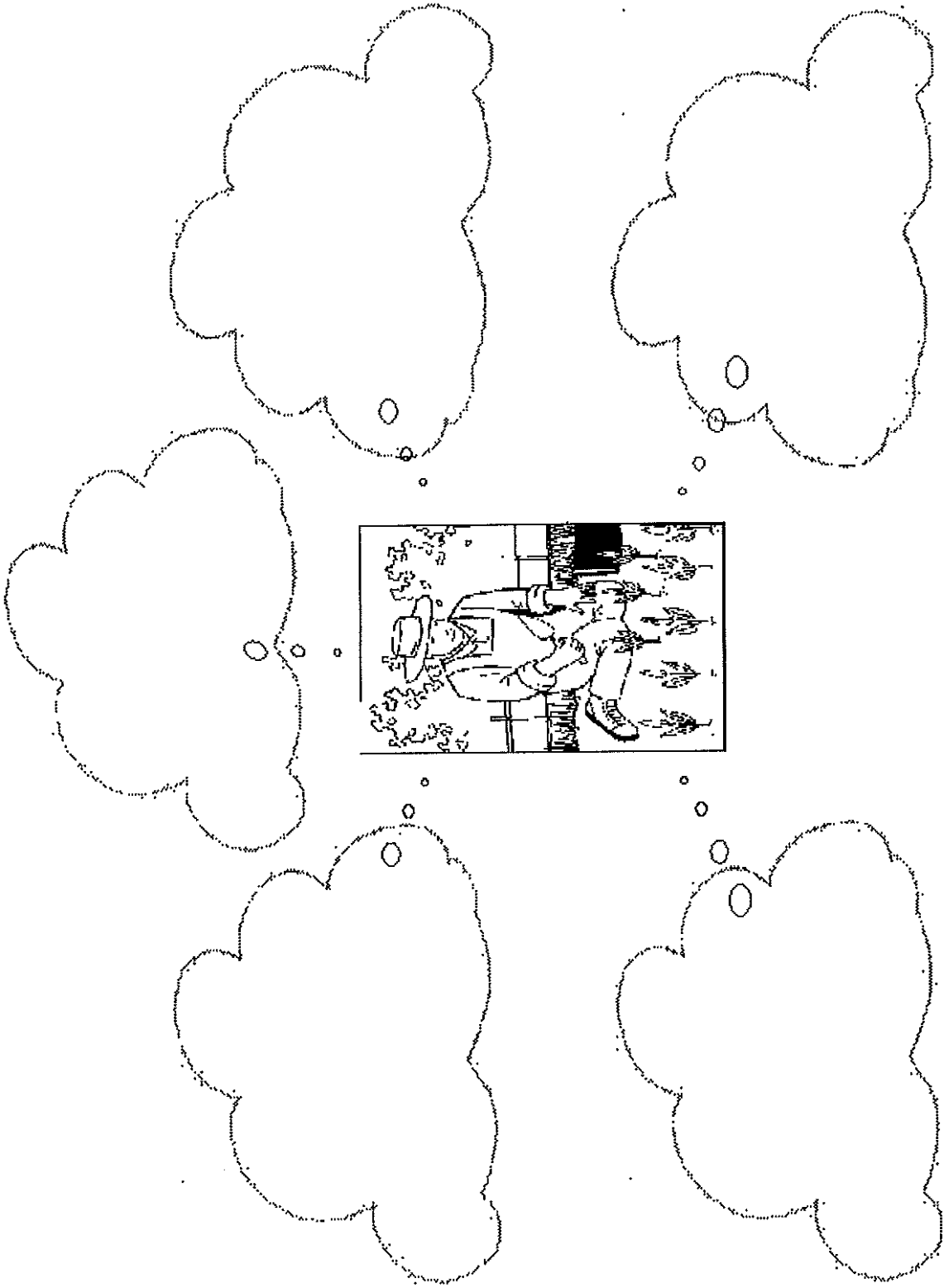
Student worksheets

**Lesson**

1. Sing the song “the farmer in the dell”...while walking in a circle. Add the farmer, the wife, the child, the dog, cat, etc. into the middle of the circle.
2. Discuss - “Who is the farmer in the song and what does he/she do? What is his/her job”?
3. Present a hypothetical scenario to the students. “Pretend that you are a vegetable farmer. What do you need to think about before you can begin to plant your crops”? Ask the students to discuss their thoughts in pairs. The pairs share their best two ideas with the whole group.
4. Draw a picture of a farmer with 5-6 thought bubbles coming from his/her head. Arrange the student responses into categories (such as weather, land, water, types of crops, equipment) within each thought bubble. Add to some of the student’s ideas if some major areas are missing.
5. Ask the students to create a plan for their vegetable farm. On their worksheet they draw some of their farm planning thinking into the thought bubbles coming from their minds. The students who complete their pictures first can share their results with 2-3 other students and add any new ideas that they are missing.

**Extensions**

1. Have the students draw a larger version of their farm. Encourage them to include as many farm components into their picture as possible.
2. Invite a vegetable farmer into talk as a guest speaker. This will provide the students with some direct real life experience to learn from and to relate to.
3. Students can sequence the events in either story.





## Lesson 9 - Vegetables Are Good For You! (Nutrition, Personal Planning)

### Objectives (students will be able to...)

- Identify food that contributes to a healthy diet
- Identify components of a healthy diet
- Prepare healthy snacks

### Materials

Food picture cards

Ingredients for recipe (hummus or salsa)

Large visual of *Canada's Food Guide to Healthy Eating*

Parent volunteers (optional)

### Lesson

1. Ask the students to think of healthy snacks and foods that they eat at home. They think of their two favorite healthy snacks.
2. Using the large visual, present the four major food groups in *Canada's Food Guide*. Discuss examples of food belonging into each food group and the names of the four food groups. Highlight the fruits and vegetables group.
3. Ask students to help decide where certain food picture cards would belong. They may require a lot of prompting and assistance if they have not seen the food guide before.
4. Discuss the fruits and vegetables group. Why are vegetables and fruits good for you?

### *Part 2 - A celebration of healthy eating*

(1-2 parent volunteers would be helpful with this activity)

1. Choose one of the following vegetable recipes or another favorite recipe of your own.
2. Write the directions out on a chart paper and go over each step with the students. The students will enjoy having their own copies of the recipes.
3. Involve the students in each step of the food preparation process and enjoy eating the wonderful snack together afterwards!

### Extensions

This lesson takes only a brief look at nutrition. There are many other resources available to help you plan a nutrition unit.

### Reference

“Coup D’Oeil Sur L’Alimentation”

*Canada's food guide to Healthy Eating*

### Fresh Tomato Salsa

(A chunky, mild salsa using fresh ingredients)

4		fresh green chilies, chopped or 2 cans of diced green chilies
4		tomatoes, chopped (may substitute 500 mL canned)
1		white onion, minced or 4 green onions, chopped
30	ml	vinegar
2		cloves of garlic, minced
60	ml	chopped cilantro leaves
		salt to taste

Combine all ingredients and mix well. Add salt to taste.

### Fresh Salsa with Fruit

1		papaya or 2 peaches, peeled and diced
1		tomato, diced
1		avocado, peeled and diced
125	mL	red onion, chopped fine
125	mL	cilantro leaves, chopped fine

Combine all ingredients and mix well. Let stand for 20 to 30 minutes for flavours to combine. Serve with tortilla chips.

### Humous

1 can		chick peas, drained (400 mL)
1 clove		garlic
1/2		small onion
45	mL	lemon juice
15	mL	olive oil
15	mL	tahini (sesame paste)
15	mL	chopped parsley
pinch		cayenne pepper

1. Place garlic, onion, and parsley in a food processor or blender and chop fine.
2. Add olive oil and tahini and process until mixed.
3. Add chick peas and lemon juice and blend well.
4. Remove from food processor or blender into a serving bowl. Stir in cayenne pepper.
5. Use as a dip for vegetables or pieces of pita bread.

## **Lesson 10 - Farm Case Study – Preparing For The Farm Fieldtrip**

### **Objective (students will be able to...)**

- Describe a farm

### **Materials**

Relevant information about the farm crops, farmer and other farm features

### **Lesson: (This lesson content will depend upon the information that the teacher is able to find about the farm)**

1. Present a general farm description (farm type, farm size, farm buildings, farm fields, farmers). A farm map or sketch can help the students to visualize the farm.
2. Discuss types of vegetable crops/other crops/animals that the students may see.
3. As a group generate a list of questions for the farmer. Begin by asking each student to think of 1-2 questions that they might like to ask the farmer and then make a class list of the questions.
4. Discuss farm safety and field trip guidelines/expectations.
5. (Farm visit predictions) Ask the children to draw and write about what they expect to see on the farm.

### **References**

-All about Food - Farm Visit Guide

-An interview with the farmer and pre-field trip visit to the farm by the teacher

## Lesson 11 - Farm Field Trip

### **Objectives (students will be able to...)**

- Interview a farmer and describe the work farmers do
- Experience farm work

### **Materials**

Weather and farm - appropriate clothing

Parent volunteers

List of class questions

### **Activities**

1. Ask lots of questions.
2. Follow farmer's tour.
3. If possible, pre- arrange to have each student harvest 1-3 vegetables to bring back to school.
4. Send students on a "vegetable plant scavenger hunt". They can search for examples of leaves, flowers, roots, stalks that are edible. Ask them to sketch as many different types of vegetables as they can find.
5. Point out the different farm components (farm buildings, equipment, working people, animals, compost pile, etc.). Ask the students to feel and smell the good farm soil. See if you can find any helpful soil critters.
6. Ask the farmer to provide as much "hands-on" experience as is possible. (harvesting, weeding, thinning or other farm tasks)

### **Extensions/Follow-up activities**

1. Discuss the responses to the class questions, and generate a new list of questions.
2. Make individual or a large class thank-you letter to the farmer.
3. Journal entries – What I saw/learned on the farm.
4. Compare our pre-farm visit predictions with what the students actually saw.
5. Make a class book with what we saw at the farm.
6. Have the students create a 3-D model of the farm with platercine and any other materials available.

## **Lesson 12 - "Stone Soup" – Culminating Activity** (Social Responsibility, Drama, Personal Planning)

### **Objectives (students will be able to...)**

- Act out or retell an old folk tale
- Share food resources and create a communal feast
- Reach out and share our resources with less fortunate members of the community

### **Materials**

"Stone Soup" story book

"La soupe aux carottes", (French story)

"La soupe aux cailloux", (French story)

Kitchen materials (soup pots, hot plate, soup ladle, potato peeler, 4-5 cutting boards and knives)

2-3 parent volunteers

Vegetable ingredients from the farm, salt, pepper and other herbs for taste (lentils or pasta optional)

Props for story retelling

### **Lesson**

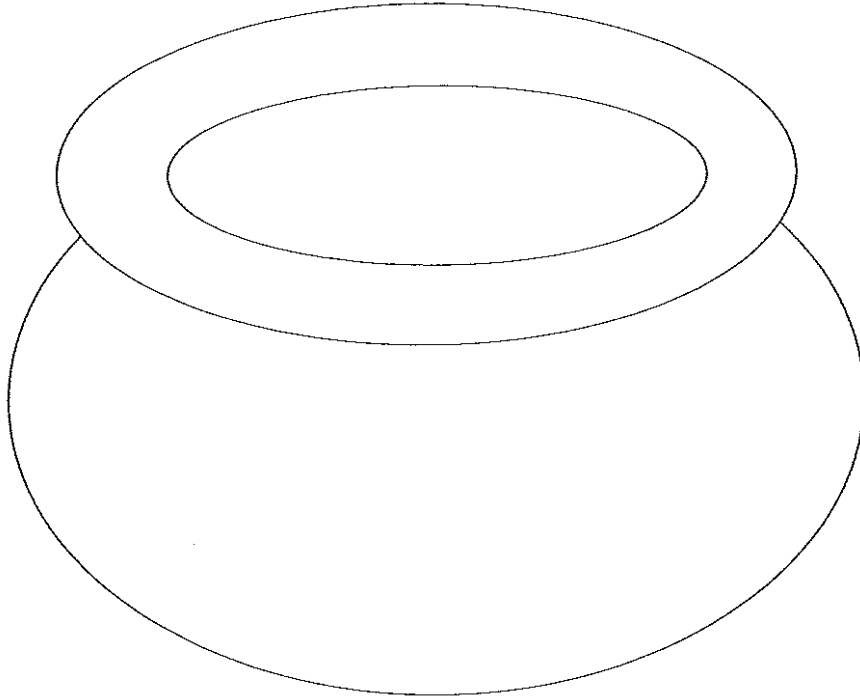
1. Act out or read the story of Stone Soup – When retelling the story, I ask the students to sit in a large circle. I act out the role of the stranger who arrives in the village. The students are asked to take on the role of the villagers. I "knock" on various students' houses asking for a meal and shelter. When I am continually rejected I decide to take out my magic stones to make a stone soup. I ask for a cauldron and some wood for a fire. The curious villagers slowly emerge from their homes and volunteer to add vegetables to the soup. The children place some vegetables into the pot. Ask the children to imagine smelling and tasting the wonderful soup.
2. Have the parents take 3-4 students at a time to put vegetables to put into a class stone soup. The students take turns helping to make the soup. The soup is best made in the classroom on a hotplate if possible.
3. Ask the students to draw and write what they imagine putting into the stone soup. The responses can be made into a class book. (See student response pages).
4. When the soup is ready, celebrate the communal feast. The students are usually very eager to eat the wonderful, nutritious soup. I usually make extra soup with the students, freeze it and donate the frozen soup to a soup-line. I discuss this with the students.

### **References**

Refer to various Stone Soup story variations in the bibliography



# Stone Soup



I put

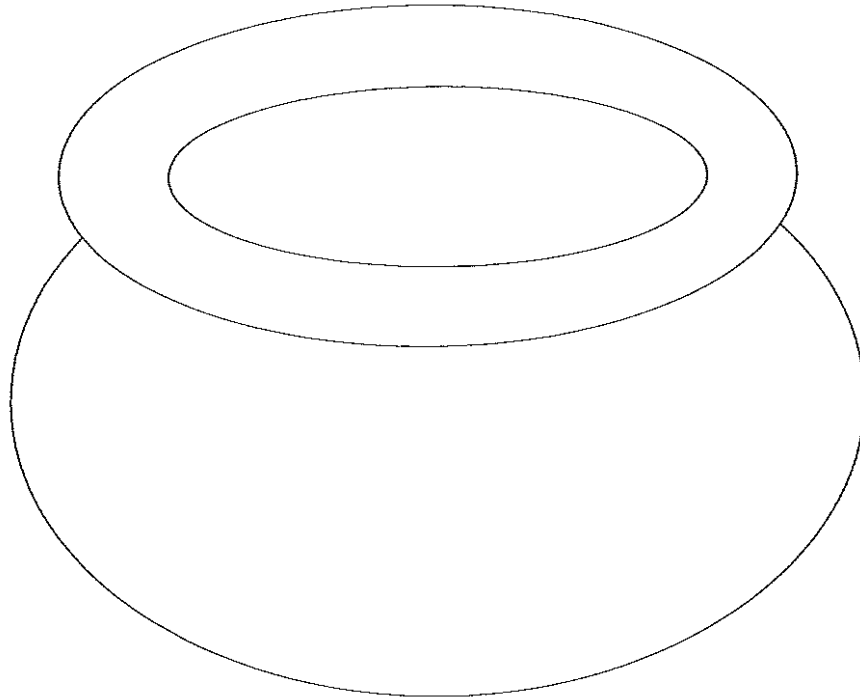
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into the stone soup.

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# Soupe au Callioux



Dans la soupe, je mets \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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Moore, J.E. (2002). *Learning About Plants*. Evan-Moore Corp.

### **Music**

Rae, Mary M. (1988). *The Farmer and the Dell: a Singing Game*. Viking Kestrel.  
(Illustrated edition which includes entire song with the music and illustrations for playing this traditional game)

### **Recipes**

Katzen, M. (2000). *The New Moosewood Cookbook*. Ten Speed Press.

### **Seeds**

Carle, E. (1987). *The Tiny Seed*. Picture Book Studio.

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### **Soil Science References**

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### **Stone Soup Folk Tale Variations**

- Bonning, T. (2002). *Fox Tale Soup*. Simon & Schuster Books for Young Readers.  
(A hungry fox tricks some barnyard animals into contributing the necessary ingredients for making his delicious stone soup)
- Bonning, T. (trans. Monéger, L.). (2002). *La Soupe au Cailloux*. Toulouse, Editions Milan.  
(A French translation of "Fox Tale Soup")
- Patron, S. (1991). *Burgoo Stew*. Orchard Books.  
(Old Billy Que tames a group of rough hungry boys by making a stone soup.)
- Patterson, D. (illust.) (1981). *Stone Soup* (trad. French tale). (Mahwah, N.) Troll Associates.  
(A group of hungry soldiers teach villagers how to make stone soup.)
- Ross, T. (1987). *Stone Soup*. Dial Books for Young Readers.  
(A clever hen manages to stall a hungry wolf's plans to make a meal of her by persuading him to taste her stone soup first.)
- Stewig, J.W. (1991). *Stone Soup (retelling)*. Holiday House.  
(A clever lass, in need of a meal, shows some stingy villagers how to make stone soup starting with "magic" stones.)

### **Vegetable Related Folk Tales**

- Stevens, J. (1995). *Tops and Bottoms*. Harcourt Brace.  
(A clever rabbit outsmarts a lazy bear and teaches the bear which part of the crop is edible.)
- Tolstoy, A. (1968). *The Great Big Enormous Turnip*. F. Watts.
- Watts, B. (1990). *La Tomate*. Editions École Active.  
(A Tomato has a difficult time deciding whether it is a fruit or a vegetable.)