



Potions Class

Curriculum-Linked Education Program Teacher's Kit

This Teacher's Kit offers supplementary materials for the *Potions Class* Education Program. It is designed to be used in your classroom before and after your program booking. We hope it will help you and your students make the most of your visit to the Museum of Health Care.

Please make use of the activities included in this kit as appropriate to your schedule and objectives. If you have any questions about the materials included here or the upcoming visit, please do not hesitate to contact the Museum.

Thank you very much, and we look forward to working with you and your class.

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Curriculum Links

Health and Physical Education:

Strand: Healthy Living

Topic: Understanding Health Concepts, Making Connections to Healthy Living

Overall Expectations

C1 Demonstrate an understanding of factors that contribute to healthy development;

C3 Demonstrate the ability to make connections that relate to health and well-being – how their choices and behaviours affect both themselves and others, and how factors in the world around them affect their own and others’ health and well-being.

Specific Expectations

C1.1 Understanding of substance abuse and related behaviours

C2.4 Apply decision-making strategies to make healthy choices about behaviours and the use of various substances in ways that could lead to dependencies, identifying factors that should be considered (*e.g., short-term use of medications can be helpful for an illness, but misuse of some medications could lead to dependency or harm*).

Science and Technology

Strand: Understanding Matter and Energy

Topic: Properties of Changes in Matter

Fundamental Concepts: Sustainability and Stewardship

Big Ideas: The properties of materials determine their use and may have an effect on society and the environment.

Overall Expectations

C1 Evaluate the social and environmental impacts of processes used to make everyday products.

Specific Expectations

C1.2 Access the social and environmental impact of using processes that rely on chemical changes to produce consumer products, taking different perspectives into account.

Pre- Visit Discussion

1. Class discussion about the different forms of advertising we have today. Draw a brainstorming web on the board and ask students to contribute different methods and mediums used in advertising. How do companies get you to buy their product?

Responses may include:

- Media, newspapers, television, billboards,
 - Commercials, Internet
 - Celebrity endorsements
 - Prizes or incentives “buy one get one free!” or “includes a free _____”
 - Slogans, mottos or mascots
 - The idea that the product will make you cool, or happier
 - “New and improved” product
2. Class discussion on medication and substance abuse. What medications do we use today? Where do we get our medications? How do we know they are safe to use? What kind of drugs can cause harm?

Vocabulary List

Vocabulary Words	Definition
Patent Medicine	Popular during the 19 th and early 20 th Century they were pills or potions that claimed to cure a wide range of maladies but often did not work as advertised. Sometimes they contained dangerous and addictive ingredients.
Pharmaceutical Drug	A chemical substance created to cure or prevent illness.
Morphine	A powerful drug, extracted from opium, often used for pain relief
Botany	The science or study of plants
Codeine	Extracted from opium, used for pain relief
Trade Cards	Small advertising cards that became popular in the 1600s, used to advertise patent medicines.

Potions Class In-Museum Program Information

Description

This educational program consists of three sections: an introduction which talks about the history of pharmacy, patent medicine, and patent medicine advertising; an activity in which participants learn how pharmacists create medicines by concocting their own tinctures; and an activity in which participants create advertisements for their tinctures.

Educational Outcome

At the end of the visit, participants will be able to:

- ❖ Describe the evolution of pharmacy and the progression from the use of untested, unreliable medicinal ingredients, to the reliable pharmacy we know today.
- ❖ Describe patent medicines, and explain several of their marketing techniques.
- ❖ Demonstrate an understanding of medicinal plants and how they can be used in pharmacy to create functional and reliable cures.

Length

- ❖ Approximately 60 minutes

Potential Audiences

- ❖ This activity can be used with school groups, summer camp groups or families.
- ❖ This program is appropriate for children ages 8-12.

Additional Information

Alternative recipe options than those presented in Potions Class:

For Fevers:

GINGER + MINT

For Coughs:

HOLY BASIL + HONEY + GINGER

For Skin Disorders:

LEMON BALM + CHAMOMILE + PEPPERMINT
(burns) LICORICE + HONEY
Make a salve (use only water to make a paste)
(eczema and itching) THYME + DANDELION
(corns) GARLIC + GREEN ONION

For Stomach Pain:

LICORICE + GINGER
CORIANDER + GINGER

(cramps) LEMON BALM + HONEY + GINGER

For Influenza:

BASIL + GINGER

For Tuberculosis:

MINT JUICE + MALT VINEGAR + HONEY + CARROT JUICE

For Indigestion:

CARDAMOM + CORIANDER
LICORICE ROOT + CHAMOMILE + PEPPERMINT

For Flatulence:

CARAWAY + FENNEL + PEPPERMINT

For Vomiting:

CHAMOMILE + FENNEL + LEMON BALM + PEPPERMINT

For Decongestion:

THYME + CARDAMOM

Medicinal Properties of Ingredients:

Ingredient:

GINGER



<https://s-media-cache-ak0.pinimg.com/236x/52/2a/f4/522af497570d46adad8808e26cdc2ffc.jpg>

MINT



<http://classroomclipart.com/images/gallery/Plants/Herbs/peppermint.jpg>

Used to treat:

Internal:

Digestive problems

- ❖ nausea
- ❖ diarrhea
- ❖ heartburn
- ❖ ulcers

Inflammation

- ❖ arthritis
- ❖ sore muscles
- ❖ low mobility

Immune System

External/Inhalant:

Respiratory infections

Internal:

Digestive problems

- ❖ indigestion
- ❖ stomach cramps
- ❖ menstrual cramps
- ❖ flatulence
- ❖ upset stomach
- ❖ nausea
- ❖ vomiting
- ❖ colic
- ❖ low appetite

Pain and Fevers

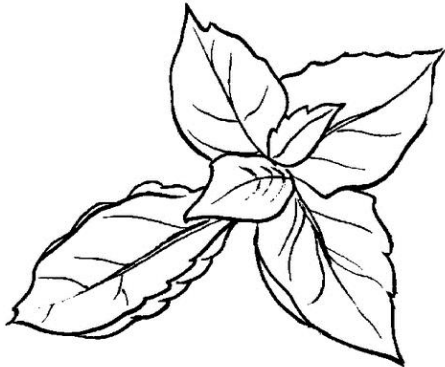
External/Inhalant:

Respiratory problems

- ❖ nasal congestion
- ❖ sinusitis
- ❖ asthma
- ❖ bronchitis

Cold and cough

BASIL



http://newsrepublican.com/sites/newsrepublican.com/files/article/519918_web_BasilCrop3.jpg

LEMON BALM



<http://lib.store.yahoo.net/lib/monticellostore/melissaofficinalisLD.gif>

Internal:

Digestive problems

- ❖ stomach cramps
- ❖ vomiting
- ❖ constipation
- ❖ flatulence

Headaches and anxiety

Colds, fever, and influenza

External/Inhalant:

Respiratory problems

- ❖ asthma
- ❖ bronchitis
- ❖ sinus infection

Infection

Pain

- ❖ arthritis
- ❖ wounds
- ❖ injuries
- ❖ burns
- ❖ bruises
- ❖ headaches

Internal:

Bacterial and viral infections

- ❖ sores
- ❖ scrapes
- ❖ insect bites and stings

Fevers

External/inhalant:

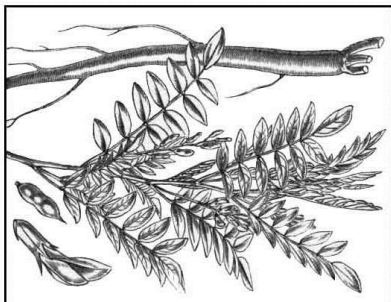
Stress

CHAMOMILE



<https://www.vectorstock.com/royalty-free-vector/drawing-chamomile-vector-476885>

LICORICE ROOT



<http://www.stuartxchange.com/Licorice.html>

Internal:

Digestive problems

- ❖ menstrual cramps
- ❖ stomach cramps
- ❖ indigestion
- ❖ flatulence
- ❖ diarrhea
- ❖ nausea
- ❖ vomiting
- ❖ poor digestion

Colic

External/inhalant:

Teething pain

Skin irritations

- ❖ ulcers
- ❖ infections
- ❖ rashes
- ❖ burns
- ❖ neuralgia
- ❖ eczema

Stress

Nervousness

Headaches

Insomnia

Fever

Allergic and respiratory problems

- ❖ asthma
- ❖ hay fever
- ❖ sinusitis
- ❖ congestion

Colds

Internal:

Peptic ulcers

Canker sores

Indigestion

External/Inhalant:

Respiratory infections

- ❖ cold
- ❖ cough
- ❖ asthma

Eczema

THYME



Internal:

Digestive problems

- ❖ intestinal worms
- ❖ diarrhea
- ❖ lack of appetite

Fungal infections

- ❖ athlete's foot

Laryngitis

External/Inhalant:

Parasites

- ❖ lice
- ❖ scabies
- ❖ crabs

Skin inflammations and sores

Bronchitis

<http://www.practicetechnical.com/archives/tag/clipart?file=Plants/Thyme.png>

DANDELION



Internal:

Constipation

Heart problems

- ❖ high blood pressure
- ❖ heart weakness

Joint and skin complaints

- ❖ gout
- ❖ eczema
- ❖ acne
- ❖ inflammatory skin conditions
- ❖ joint pain

External/Inhalant:

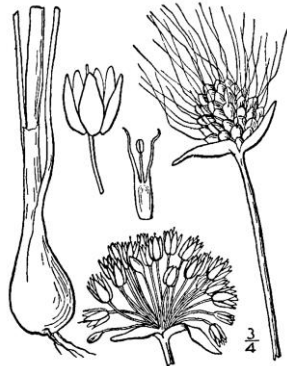
Bacterial infections

- ❖ corns and warts

Wounds

<http://www.phytology.org.uk/plants/dandelion/> drawing by Talya Baldwin

GARLIC



Internal:

Blood and Heat Problems

- ❖ blood pressure
- ❖ hypertension
- ❖ arteriosclerosis
- ❖ heart dysfunctions
- ❖ diabetes
- ❖ obesity

Bacterial problems

Intestinal problems

- ❖ diarrhea
- ❖ gastroenteritis

[https://commons.wikimedia.org/wiki/
File:Allium_vineale_drawing.png](https://commons.wikimedia.org/wiki/File:Allium_vineale_drawing.png)

ONION



Internal:

Oral Health

Heart Ailments

Coughs

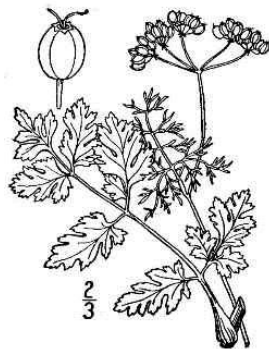
Stomach Aches

Cancer

Earaches

[https://pixabay.com/en/onion-biology-plant-flower-leaves-
161653/](https://pixabay.com/en/onion-biology-plant-flower-leaves-161653/)

CORIANDER



Internal:

Swelling

Diarrhea

Mouth Ulcers

Digestion

Small Pox

External:

Skin Disorders

- ❖ eczema
- ❖ dryness
- ❖ fungal infections

[http://www.desert-tropicals.com/Plants/
Apiaceae/Coriandrum_sativum.html](http://www.desert-tropicals.com/Plants/Apiaceae/Coriandrum_sativum.html)

Post-Museum Visit Activities

1. Interview a grandparent, or another elderly relative or friend, about the types of medicine they took when they were growing up. What types of medicines or remedies were available in their childhood homes?
2. Create a class book of “home remedies” or get-better quick tips. Each student can contribute a tip or remedy (ie. aloe for burns, peppermint tea for stomach ache, etc)
3. Film or perform a skit of an infomercial advertising a medicine or herbal ingredient from the early 1900s. Make sure you include the ingredients and side effects of the product, and get creative!
4. Mrs. Winslow’s Soothing Syrup, a medication for teething babies, had disastrous consequences. Do a research project on a Canadian legal case about medicines that had unfortunate results. What was the outcome of the case?

Additional Class Activity: Rock Candy Science Experiment

If student participants particularly enjoyed mixing their own medicines, creating rock candy can be a fun and educational class science project. The rock candy experiment can be helpful in explaining the different types of solutions and the nucleation process.

The recipe for rock candy and corresponding scientific experiment are available at this link:

http://www.sciencebuddies.org/science-fair-projects/project_ideas/FoodSci_p005.shtml

Self Evaluation and Reflection

Name: _____

Learning Skills

N - need improvement S - satisfactory work G - good work E - excellent work

Independent Work

- | | | | | |
|--|---|---|---|---|
| <input type="checkbox"/> worked well without supervision | N | S | G | E |
| <input type="checkbox"/> followed rules and instructions independently | N | S | G | E |

Initiative

- | | | | | |
|---|---|---|---|---|
| <input type="checkbox"/> responded to a new situation or challenge | N | S | G | E |
| <input type="checkbox"/> showed interest in the activity and a willingness to learn | N | S | G | E |

Use of Information

- | | | | | |
|--|---|---|---|---|
| <input type="checkbox"/> asked questions to clarify meaning and ensure understanding | N | S | G | E |
|--|---|---|---|---|

Cooperation

- | | | | | |
|--|---|---|---|---|
| <input type="checkbox"/> showed positive relationships with other students | N | S | G | E |
| <input type="checkbox"/> helped others | N | S | G | E |
| <input type="checkbox"/> shared in cleaning duties after an activity | N | S | G | E |

Conflict Resolution

- | | | | | |
|---|---|---|---|---|
| <input type="checkbox"/> resolved conflicts in socially accepted ways | N | S | G | E |
| <input type="checkbox"/> assisted others to resolve conflicts appropriately | N | S | G | E |

Class Participation

- | | | | | |
|---|---|---|---|---|
| <input type="checkbox"/> willingly worked with a new grouping | N | S | G | E |
| <input type="checkbox"/> took responsibility for my share of the work | N | S | G | E |
| <input type="checkbox"/> encouraged others to participate | N | S | G | E |

Problem Solving

- | | | | | |
|--|---|---|---|---|
| <input type="checkbox"/> applied successful strategies to new problem situations | N | S | G | E |
|--|---|---|---|---|

What I did best during this activity:	What I need to improve and how I will achieve that goal:
What I liked best about the activity and why I liked it:	What I would change about the activity if given the opportunity:
Something new I learned:	What I would like to learn more about:

Teacher Resources

Agriculture in the Classroom: My First Herb Garden

<http://www.aitc.ca/bc/uploads/summerinstitute/my%20herb.pdf>

Information on setting up a classroom herb garden, with detailed activities and handouts.

Museum of Health Care online exhibit: Reading the Trade Cards

<http://museumofhealthcare.ca/exhibits/trade-card/>

Online exhibit of patent medicine advertisements.

Museum of Health Care online exhibit: The Healing Power of Plants

<http://museumofhealthcare.ca/exhibits/plants.html>

Online exhibit on traditional herbal remedies.

Patent Medicines – Museum of London

<http://www.sciencemuseum.org.uk/broughttolife/techniques/patent.aspx>

Information on the history of some notable patent medicines.