# Pin the Organ on the Body

## Curriculum-Linked Education Program
## Teacher's Kit

This Teacher's Kit offers supplementary materials for the ***Pin the Organ on the Body*** 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

**Science and Technology:**
**Strand: Understanding Life Systems**
**Topic: Human Organ Systems**

**Fundamental Concepts:** Systems and Interactions, Structure and Function

**Big Ideas:** 1)Organ systems are components of a larger system (the body) and, as such, work together and affect one another.
2) Organ structures are linked to their functions.
3) Systems in the human body work together to meet our basic needs.
4) Choices we make affect our organ systems and, in turn, our overall health.

**Overall Expectations**

**C2** Students will investigate the structure and function of the major organs of various human body systems;
**C3** Students will demonstrate an understanding of the structure and function of human body systems and interactions within and between systems.

**Specific Expectations**

**C2.4** Use appropriate science and technology vocabulary, including *circulation*, *respiration*, *digestion*, *organs*, and *nutrients*, in oral and written communication
**C3.2** Describe the basic structure and function of major organs in the respiratory, circulatory, and digestive systems
**C3.3** Identify relationships between body systems *(e.g., the respiratory system provides oxygen and removes carbon dioxide for the circulatory system)*

**Strand: Understanding Structures and Mechanisms**
**Topic: Structure and Function**

**Fundamental Concepts:** Structure and Function

**Big Ideas:** Structures and mechanisms throughout our environment have forces that act on and within them.

**Specific Expectations**

**3.1** identify internal forces acting on a structure ***(e.g., compression [squeezing], tension [stretching])***, and describe their effects on the structure

**Health and Physical Education**
**Strand: Active Living**

**Overall Expectations**

**A3** Demonstrate responsibility for their own safety and the safety of others as they participate in physical activities.

## Vocabulary List

| Vocabulary Word | Definition |
|---|---|
| Respiratory System | Responsible for the supply of oxygen to the blood, and getting rid of gases that the body does not need |
| Digestive System | Responsible for breaking down and processing food, and removing it from the human body |
| Trachea | Also known as the windpipe, the tube by which air travels to reach the lungs. |
| Lungs | Organs that perform respiration for the body |
| Stomach | A hollow sac-like organ that aids in the breakdown of food |
| Spleen | Organ found in the abdomen that helps produce and store blood cells |
| Liver | Organ that stores vitamins, removes harmful substances from the blood, and helps to break down fats. |
| Small Intestines | An area in the digestive tract where food is absorbed |
| Large Intestines | Waste travels through the large intestines through muscle contractions in order to leave the body |
| Heart | The organ responsible for moving blood around the body |

# Pin the Organ on the Body In-Museum Program

## Description

Participants learn about the location and function of the human body's major organs and are given the opportunity to play the "Pin the Organ on the Body" Game. Organs discussed include the brain, heart, lungs, spleen, liver, intestines, and stomach.

## Educational Outcome

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

- Explain the function of the human body's major organs and identify which system they belong to
- Understand the location of the major organs within the body

## Length

- Approximately 30-35 minutes

## Potential Audiences

- This activity could be used with school groups, summer camp groups or families
- This activity is appropriate for children ages 6-12

# Post-Museum Visit Activities

## Matching Challenge!

Match up the organ to its function!

| | |
|---|---|
| ___ 1. Removes old red blood cells | **A**. Heart |
| ___ 2.The body's "control centre" | **B.** Trachea |
| ___ 3.Bony tube that connects the mouth to the lungs | **C.** Stomach |
| ___ 4. Receives blood from the lungs and pumps it to the body | **D.** Lungs |
| ___ 5. Breaks down food into smaller particles | **E.** Spleen |
| ___ 6.The passageway that waste travels when leaving the body | **F**. Brain |
| ___ 7. An organ that brings oxygen into the body | **G**. Intestine |

Answer Key:
1. E, 2. F, 3. B, 4. A, 5. C, 6. G, 7. D

**Post-Visit Potential Assignments**

a) Select an organ and create a poster advertising the organ and its special functions.

b) Break class into teams of three or four. Each team must present a report to the class about the structure and function of a different organ system. Encourage students to present their information in a creative way! Perhaps in a skit, short film, or song form.

c) Work together as a class or in small groups to simulate all the steps in one of the human body systems.

d) Design a labelled model showing how an organ or a human organ system functions. This can be completed as a simple diagram using construction paper, or a 3D model.

A video tutorial demonstrating how to construct a simple 3D model of a lung can be viewed at this link:
http://sciencesquad.questacon.edu.au/activities/model_lung.html

# Self Evaluation and Reflection

Name: _____

**Learning Skills**
N - needs improvement S - satisfactory work G - good work E - excellent work

**Independent Work**
- ❑ worked well without supervision N S G E
- ❑ followed rules and instructions independently N S G E

**Initiative**
- ❑ responded to a new situation or challenge N S G E
- ❑ showed interest in the activity and a willingness to learn N S G E

**Use of Information**
- ❑ asked questions to clarify meaning and ensure understanding N S G E

**Cooperation**
- ❑ showed positive relationships with other students N S G E
- ❑ helped others N S G E
- ❑ shared in cleaning duties after an activity N S G E

**Conflict Resolution**
- ❑ resolved conflicts in socially accepted ways N S G E
- ❑ assisted others to resolve conflicts appropriately N S G E

**Class Participation**
- ❑ willingly worked with a new grouping N S G E
- ❑ took responsibility for my share of the work N S G E
- ❑ encouraged others to participate N S G E

**Problem Solving**
- ❑ applied successful strategies to new problem situations N S G E

| | |
|---|---|
| **What I did best during this activity** | **What I need to improve on 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

Human Body and Mind
http://www.bbc.co.uk/science/humanbody/body/

*Online games about the human body.*

The Lung Association: Inside the Human Body- The Respiratory System
http://www.lung.ca/children/grades4_6/index.html

*Information about lung health and air pollution.*

Model of a Human Lung
https://www.questacon.edu.au/outreach/programs/science-circus/videos/model-of-lung

*Instructions for making a simple model of the human lung.*

The Inner Body
http://www.innerbody.com/image/digeov.html

*Interactive 2D and 3D models of the human digestive system.*