

# HARMFUL SUBSTANCES

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## Subject

Basic Science

## Prepared By

[Instructor Name]

## Grade Level

1

## Overview

This lesson plan covers teaching content for;

1. Types of harmful substances
2. How harmful substances are taken into the body
3. Classification of harmful substances on the body
4. Effects of harmful substances on the body and how to avoid them.

## Teacher Guide

### Objectives

1. Students should be able to identify substances that can be harmful to the body (Ingestible and non-ingestible substances).
2. Student should be able to mention ways through which harmful substances get into the body.
3. Mention ways by which non-ingestible things harm the body (e.g. touching)
4. Discuss the harmful effects of harmful substances on the body.
5. Mention how they could avoid harmful substances.

### Day 1/Lesson 1- 15 Mins

1. Divide the class into four groups.
2. Hand out Pictures of four different harmful substances.
3. One harmful substance to each group.
4. Initiate a teacher led discussion by asking the students to describe their harmful substance.

### Day 3 Lesson 3-15 mins

1. For this activity, you need several empty containers of common household substances and medicines.
2. Display the containers and describe each one.
3. Emphasize those substances with warning labels or universal warning symbols.
4. Draw the universal warning symbol on the board and write the word poison next to the symbol.
5. After students have defined poison, divide the class into small groups and give each group several empty containers to examine.
6. Have two groups classify the substances as "healthy" or "harmful" while the other two groups classify the substances as "safe" or

## Guided Practice

### Day 2 Lesson 2- 15 mins

1. Have the students remain in their groups as you share with them the definitions of their harmful substance.
2. Provide them with the following definitions.
  - **Poisonous/toxic substances** are dangerous to people and animals even in small amounts. They are also capable of causing injury or death, especially by chemical means (e.g. bleach).
  - **Explosive substances:** produce vapor or explode when they react with other substances (e.g. Fireworks).
  - **Corrosive substances:** it eats away at other substances and even kills skin tissue (e.g. car batteries).
  - **Flammable substances:** are gases, liquids and solids that ignite and continue to burn in air if exposed to a source of ignition (e.g. gasoline lighter).
3. Ask them what they think about the harmful substance.

## Materials Required

- Pictures of harmful substances like: Cigarette, smoke, expired food, dirty water
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## Additional Resources

- <https://teachingtools.ophea.net/activities/guide/substance-use>
- [www.curriculumtheoryproject.ca/wp.../Wiseman.pdf](http://www.curriculumtheoryproject.ca/wp.../Wiseman.pdf)
- <https://www.state.nj.us/education/arc/>
- <http://www.esfd.org/index.php/facts-and-safety/poisons-harmful-substances>
- <http://www.county.allegheny.pa.us/HurConsumer-Protection/Keeping-Children-Safe>
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## Additional Notes

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### Information/Instruction

1. Tell the students that harmful substances refer to microorganisms such as bacteria, virus etc.
  2. Tell the students the effects of harmful substances on humans.
  3. Let them know that;
    - They can cause ill health
    - They can lead to death
    - They may lead to permanent deformity
    - They may affect normal growth.
  4. Inform them that they can prevent intake of harmful substances by;
    - Leaving in a clean and healthy environment
    - Choosing a healthy lifestyle
    - Avoiding smoking or smoking areas
    - Ensuring their foods are well preserved and cooked before eating
    - Expired food and drinks should be disposed immediately
    - Checking expiry date of everything they consume.
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### Teacher Guide

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- “poison.”
7. Each group writes or illustrates one safety rule for the use of medicines and household substances.
  8. Reconvene the entire class and discuss safety rules. Add rules to the list as needed.

### Guided Practice

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	Teacher Guide	Guided Practice
<b>Assessment Activity</b> 1. Ask them to identify and classify harmful substances. 2. Have them mention three ways by which harmful substances are taken into the body.	<b>Assessment Activity</b> 1. Tell them to describe three effects of harmful substances on the body 2. Ask them to mention two ways of avoiding harmful substances. 3. Tell students that they will be completing a home survey of household chemicals. Brainstorm household chemicals students can look for, such as hand soaps, dish detergents, kitchen and bathroom cleaners, etc.	1. Each student will fill out the Household Chemical Survey as homework. 2. At the following class period, discuss what students found during their surveys and assess them.
<b>Summary</b>		