

MODEL LESSON PLAN

CLASS: 9 SUBJECT: BIOLOGICAL SCIENCE SCHOOL:

SCHOOL:

[illegible]

PRIOR CONCEPTS/SKILLS

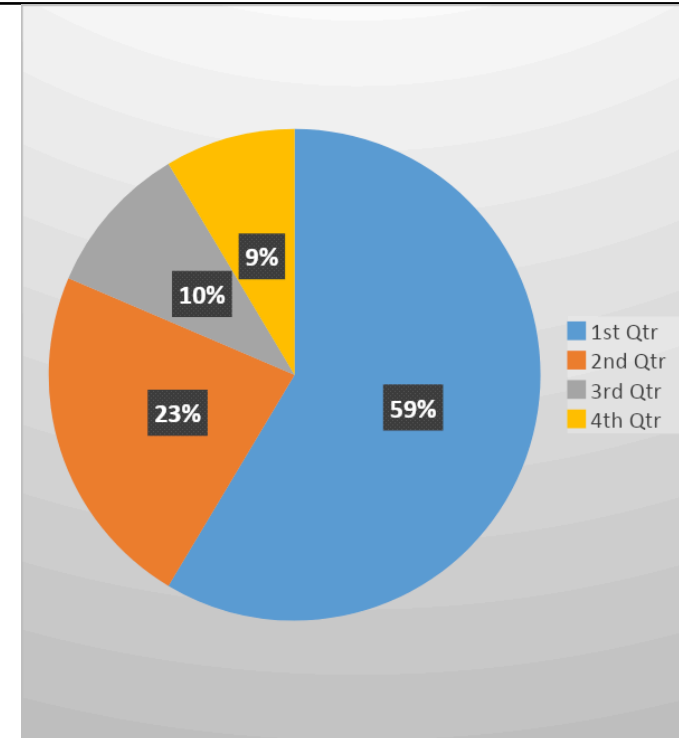
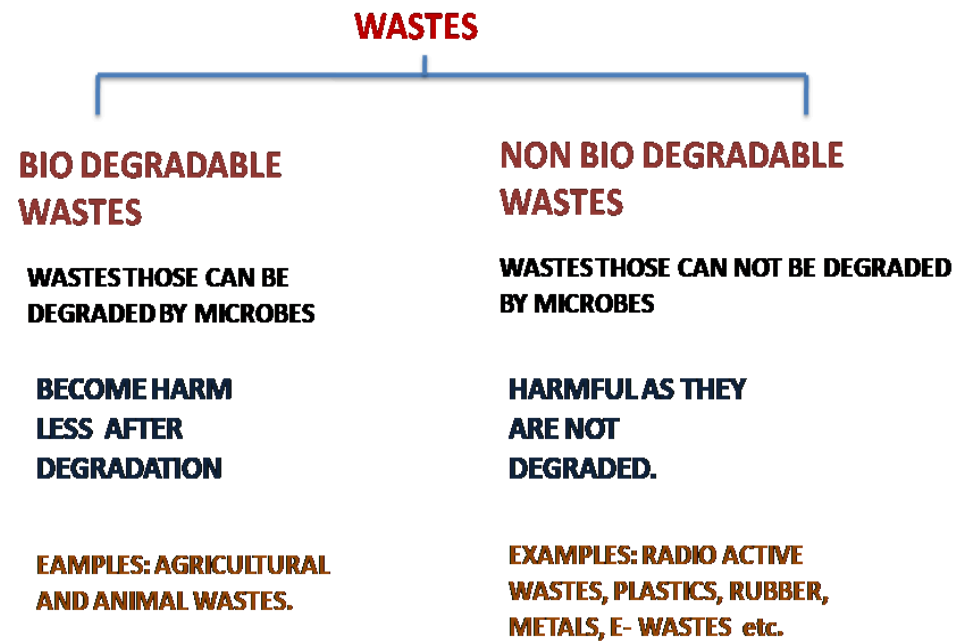
SOIL POLLUTION, SOIL FORMATION, TYPES OF SOIL, AIR POLLUTION, WATER POLLUTION, HYDROSPHERE, LITHOSPHERE, BIOSPHERE, ATMOSPHERE., POLLUTANTS,

LEARNING OUTCOMES:

THE CHILDREN ARE ABLE TO

- explains physical, chemical and biological properties of soil.
- explains about Soil fertility and soil pollution.
- Differentiates Bio degradable and non bio degradable wastes.
- analyses causes of soil pollution especially caused by human beings.
- appreciates agricultural methods like crop rotation in conserving soil fertility.
- Utilises Biofertilizers, Bio remediation and contour ploughing.

INTRODUCTION:



SOIL POLLUTION- AIR POLLUTION, WATER POLLUTION, BIO POLLUTION, SYMBIOSIS, etc.

EXPERIENCE AND REFLECTION;

1. What is Pollution?
2. Why we close our nose when we are crossing a drainage?
3. What happened to the people living beside a brick industry?
4. Why some people got allergy?
5. Why some diseases spread in the rainy season?
6. Why some people practicing organic farming?

EXPLICIT TEACHING	GROUP WORK	INDEPENDENT WORK
<ul style="list-style-type: none"> □ The teacher will discuss about how the soil is formed from rocks and physical, chemical and biological properties of soil □ The teacher will explain how the soil becomes fertile with the organic matter and microorganisms in the soil, also how the soil maintain pH value. □ The teacher explains Bio-magnification.and causes. □ The teacher discuss the various effects of soil pollution and steps to be taken to stop pollution. 	<ul style="list-style-type: none"> ✧ The Teacher and the students are went to the dumping yard and observe how the soil may get polluted. ✧ Also went to the fields and observe what chemicals are used in the fields and how the soil may get polluted. ✧ The students are directed to do the dumping and decomposing activity ✧ The results of deforestation and pollution due to urbanisation.. ✧ Measures to be taken to Conserve Soil. 	<ul style="list-style-type: none"> ❖ The students are directed to read and observe the Biodegradable and Non-bio-degradable wastes from their surroundings. ❖ Ask them the read and identify the factors of the soil pollution. ❖ What are the result when we use Chemical Fertilizers indiscriminately. ❖ What happened when Pesticides, Fungicides, Weedicides. Use indiscriminately. ❖ Why some countries ban DDT? ❖ The students are directed to do a project work on crop rotation to save the soil.

CHECK FOR UNDERSTANDING	TLM (DIGITAL+PRINT)
<p>1. FACTUAL</p> <p>1. Students will read passages Soil Properties from page no. 149 &150, explain fig. 3 in page no. 151 and Answer these questions.</p> <p>(1) Ideal P^H good soil is_____</p> <p>(2) Organic matter in soil comes under_____ property of soil.</p> <p>(3) What three nutrients are necessary to present in soil for proper growth of plants?</p> <p>(4) Major microbial organisms burrowed in soil are_____.</p> <p>2. Students will conduct activity 1. Page no. 153.</p> <p>3. Students will conduct activity 2 Page no. 153 .</p> <p>4. Students will read passage Control OF Soil Pollution from pageno.161 and 162 and write a note on the basis of the following questions.</p> <p>(1) What measures do you suggest to reduce soil pollution?</p> <p>(2) How does reusing of materials reduce soil pollution?</p> <p>(3) How do reforestation and control of land loss control soil pollution?</p> <p>3. Students will read passages Causes of pollution from page no. 155 to 159 and list out the causes. They will write few lines about each cause of pollution and discuss them in classroom.</p>	<p>1. https://youtu.be/Cy6W5fHPBLg Human causes for soil pollution</p> <p>2. https://youtu.be/NwChT0l5Clo Azospirillum Bio fertilizer</p> <p>3. https://youtu.be/viPzxZ8vCIk Bio remediation - Phyto remediation</p> <p>1. POLLUTION CHART</p> <p>2. RAG PICKERS CHART</p> <p>3. DEFORESTATION PHOTO</p>

<p>ASSESSMENT:</p> <p>1. WHAT IS SOIL POLLUTION?</p> <p>2. WHAT ARE THE THREE PROPERTIES OF THE SOIL?</p> <p>3. WHY THE GOVERNMENT BAN ON PLASTIC BAGS?</p> <p>4. WHAT IS MEANT BY BIO-REMEDIATION? HOW IT HELPS IN CONTROLLING SOIL POLLUTION?</p>
