**MODEL LESSON PLAN FOR ALL TYPES OF HIGHSCHOOLS**

**CLASS : VIII SUBJECT: Biological Science Name of the Teacher : Name of the School:**

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| **Name of the Lesson/Unit** | **Topic** | **No. of****Periods****Required** | **Time line for teaching** | **Any specific****Information** |
| **From**  |  **To** |
| Crop ProductionAndManagement | Agricultural practices  |  1 |  |  |  |
| Basic Practices of Crop Production  |  8 |  |   | qrcode_www.startus-insights.com.png |
| Food From Animals  |  1 |  |  |  |
|  | Total |  10 |  |  |  |

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| **Prior Concept/Skills*:*****1. We get energy from food.** **2. We get our food from plants and animals.**  **3. Plants prepare their own food.**  **4. Growing of useful plants in large quantity is called Agriculture.**  **5 Plants need manure to grow.**  |
| **Learning Outcomes: Pupil*** + classifies kharif and Rabi crops.
	+ explains different agricultural practices.
	+ discusses on advantages of preparation of soil.
	+ differentiates fertilizers and manures; threshing and winnowing.
	+ conducts experiments to prove role of fertilizers in plant growth.
	+ relates traditional irrigation methods with diminishing water resources.
	+ debates on advantages of drip irrigation and sprinkler irrigation systems.
	+ defines animal husbandry.

 | **No. of Periods: 10** |

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| **TEACHING LEARNING PROCESS** |
| **Induction / Introduction : (By posing questions on students previous knowledge)**  **1. From where do we get energy to perform metabolic activities like digestion, respiration and circulation etc.?**  **2. Where do we get our food from?** **3. Which organisms prepare food for other organisms?**  **4. Why does a farmer grow plants in large number? What is the purpose?**  **5. Which type of plants they grow?** **6. How do we get bags of rice for our family needs?** **7. Why do some of our families rear bedfellows and cows?**  |
| **Experience and Reflection :** Discussion on variety of crops cultivated in your area and times of cultivation of them within a year.The discussion should be leaded to kharif and Rabi. |
|  **Explicit Teaching/ Teacher Modelling (I Do)** |  **Group Work (We Do)** |  **Independent Work (You Do)** |  |
| 1. Discussion on Crop – kharif and rabi crops
2. Discussion on agricultural practices.
3. Discussion on procedure and importance of preparation of soil.
4. Demonstration of agricultural implements like plough, hoe, cultivator etc,.
5. Discussion and demonstration of traditional tool for sowing and seed drill.
6. Discussion on Manure and fertilizer.
7. Discussion and demonstration of different methods irrigation and their advantages.
8. Discussion on Crop rotation.
9. Discussion on Weedicides.
10. Demonstration of harvesting, threshing and winnowing with the help of pictures or videos.
11. Discussion on Storage of grains.
12. Discussion on animal husbandry.
 |  1. Differentiation of Kharif and Rabi crops. 2. Activity 1.1 – separating good and healthy seeds from the damaged ones. 3. Activity 1.2 to prove the essentiality of fertilizer or  manure for plant growth.  4. Study and Identification of the differences between fertilizer and manure 6. Discussion on advantages of irrigation and their sources.  7. Discussion on weeds and their harm to crop plants.  |  1. Differentiate fertilizers and manure.  2. List out the advantages of manure. 3. Differentiates threshing and winnowing.  4. Draw pictures of granaries and silos.  5. Defines animal husbandry.  |

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| **Check For Understanding Questions**1. **Factual:**

1. What is the need of preparation of soil before sowing?  2. What is the role of crop production in conservation of nutrients in soil.  3. Why do weeds are to be controlled?  4. How do Agriculture and Animal husbandry resolves the issue of people’s increasing food needs? 1. **Open Ended / Critical Thinking:**
2. If wheat is sown in the *kharif* season, what would happen? Discuss.

 2. Explain how soil gets affected by the continuous plantation of crops in a field 3. Why do weedicides do not affect crop plants? **3.Student Practice Questions & Activities:** 1. Draw concept map of basic practices for crop production.  2. Draw pictures of plough and seed drill.  |  **TLMs** *(Digital+Print)*Pictures of plough, hoe, cultivator, traditional seed drill,  modern seed drill, weedicides, fertilizers, sprinkler  irrigation, drip irrigation.  <https://youtu.be/cBkBwVFFEWw> Compost preparation <https://youtu.be/8ulpy_GFLDk> soil preparation <https://www.diksha.gov.in/play/content/do_3130881903616983041751> agricultural practices ( covers whole lesson) <https://www.diksha.gov.in/play/content/do_313088191709593600155> compost, manure and fertilizers. Charts and modals showing different agricultural implements.Pots, seeds, water, soil, manure etc. |
| **Assessment***.*1. Classify the Kharif and Rabi crops grown in your locality?
2. Explain structure of plough. How it is made to loosen soil?
3. What are the advantages of preparation of soil?
4. Differentiate between Fertilizer and manure.
5. How can you show the role of fertilizers in plant growth
6. Explain the process to prove essentiality of manures or fertilizers in plant growth.
7. How the drip irrigation and sprinkler irrigation methods are advantageous than traditional irrigation methods in agriculture.
8. What is animal husbandry?
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##  SIGNATURE OF THE TEACHER SIGNATURE OF THE HEAD MASTER

 **VISITING OFFICER WITH REMARKS**