

Subject - Agriculture

Class - 12th

Duration - 35 Min.

Topic - Water Cycle

Learning outcomes-

- Students will know about the water cycle.
- Students will understand the importance of water cycle.
- Students will identify the steps of water cycle.
- Students will describe the movement of water with the water cycle
- Students will demonstrate , the process of evaporation , Condensation , precipitation.

Learning objectives –

- To know the terms evaporation , Condensation , precipitation etc.
- To learn about the water cycle.
- To understand the importance of water cycle.
- To identify the different steps of water cycle.
- To differentiate between the process of evaporation , Condensation , precipitation.

Teaching Aids – Blackboard , Chalk , Poster , Chart and PPTs for smart classes.

Teaching Points –

- What is water cycle
- Importance of water cycle
- Different steps of water cycle

Teaching Strategies –

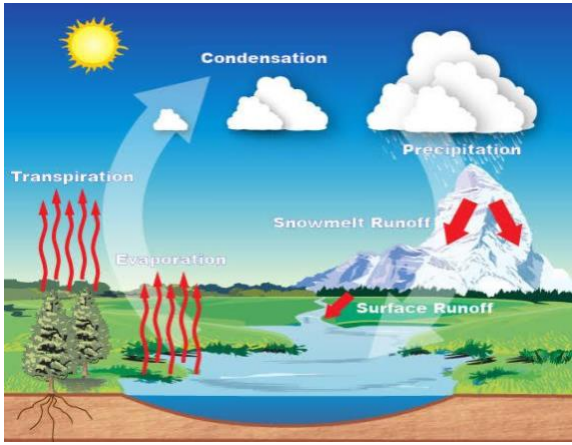
- Interactive Lecture Method
- Discussion Method
- Explanation Method
- Demonstration Method
- Questioning

P.K Testing

5E	PT Activity	Student Active
<p>Engage</p>	<p>PT will try to engage and creating curiosity among the students by asking questions.</p> <ul style="list-style-type: none"> • What are the basic need of a human body. • Why do we need food. • Why do we need water. <ul style="list-style-type: none"> • What will happen if i do not drink sufficient amount of water. • From where we get water <ul style="list-style-type: none"> • Okay, very well, now tell me how does it rain. <p>Announcement of the topic – Okay , students , today we will discuss about the topic water cycle.</p>	<p>Water , Food , Air</p> <p>To get energy. For temperature maintenance and hydrate our body</p> <p>Dehydration , weakness and sometimes we get faint.</p> <p>River well pond and rainwater</p> <p>Student will answer accordingly.</p>
<p>Presentation</p>		

<p>Explore</p>	<p>PT will ask some questions to explore the knowledge of students –</p> <ul style="list-style-type: none"> • Students in summer the water level of river , Ponds will high or low. 	<p>It becomes low in summer season.</p>
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	<ul style="list-style-type: none"> • Now tell me when it will again reach normal or high level. • Why water level becomes low in summer season? <p>Yes, very good where does this evaporation water goes to?</p>	<p>Rainy Season</p> <p>Because of evaporation of water due to high heat of sun.</p> <p>It goes to cloud.</p>
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<p>Explain</p>	 <p>The diagram illustrates the water cycle with the following components: <ul style="list-style-type: none"> Transpiration: Red wavy arrows pointing upwards from a tree. Evaporation: Red wavy arrows pointing upwards from a body of water. Condensation: A blue arrow pointing from the water surface up to a cloud. Precipitation: Blue rain falling from a cloud onto a mountain. Snowmelt Runoff: Red arrows pointing down a mountain slope towards a river. Surface Runoff: A red arrow pointing from the riverbank towards the river. </p>	<p>Student will note down.</p>
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	<p>Water cycle, also called hydrologic cycle that involves the continuous circulation of water in the earth atmosphere system many processes involve in the water cycle the most important are –</p> <ul style="list-style-type: none"> • Evaporation • Transpiration • Precipitation • Condensation <p>Actually in atmosphere the overall water is remaining</p>	<p>Students will try to understand the process.</p>
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	essentially constant with in the cycle.	
Elaborate	<p>Well students now we will discuss about the different steps of water cycle.</p> <p>Students will give me the some example of evaporation.</p> <p>Give me some example of Condensation.</p> <p>Okay let me elaborate the terms/ steps of water cycle.</p> <p>Evaporation – The transfer of water from the Earth of atmosphere is called evaporation .The main factors affecting evaporation are – temperature, humidity , wind speed , solar radiation.</p> <p>Transpiration – It is a process of water movement , water loss through a plant and it evaporation from aerial parts such as leaves , stems and flowers.</p> <p>Condensation – Transition process from vapour state to the liquid state. In the atmosphere</p>	<p>Dry of Wet Clothes.</p> <p>Deposition of water drop lets Chilled water bottle.</p> <p>Students will listen carefully .</p> <p>Students will understand.</p>

	<p>Condensation may appear as cloud or dew.</p> <p>Precipitation – it is the result when the tiny Condensation particles grow large through collision and these fall to the earth. It can be in the form of rain , hail , snow etc.</p>	
Evaluation	<ul style="list-style-type: none"> • What is water cycle? • Define the form evaporation. • How the cloud is formed? • What is the fourth step of water cycle. 	Students will answer accordingly.
Homework	Draw a chart of water cycle.	