

KIDS WORLD SCHOOL
SESSION - 2024 -25
ANNUAL CURRICULUM PLANNER
SUBJECT - BIOLOGY
CLASS - X

MONTH	NAME OF THE LESSON	METHODOLOGY	LEARNING OBJECTIVES		LEARNING OUTCOMES	MODE OF ASSESSMENT AND ACTIVITIES
			KNOWLEDGE / CONTENT BASED	APPLICATION BASED		
April/ June/July Date- 18/03/2024 to 15/07/2024	CH.5 Life Processes	Introduction Explanation Discussion Experimentation Demonstration Videos	1) To make the students learn and understand about different modes of nutrition and differentiate between autotropic and heterotropic nutrition. 2) To enhance the ability tounderstand that autotrophic nutrition involves the intake of simple inorganic materials from the environment and by using an external energy source like sun to synthesise complex high energy organic material.	Students will be able to - 1) Identify that different food items consumed by them take different duration of time for digestion. 2) Analyze that heavy food items should be Consumed during morning hours and lighter in evening. 3) Interpret that problem of acidity is due to the presence Different gastric enzymes.	1) Students understood different modes of nutrition involved in life process. 2) They were able to analyze that duration for digestion of fats is more than protein and carbohydrates. 3) They were able to evaluate the importance of enzymes and gastric juices in the process of digestion. 4)They were able to recognize that problem of acidity or ulcer or any	(Multidisciplinary Activity) Activity- Real Life Experiences using the Knowledge of Life Processes through Dramatics.(Street theatre) ASSESSMENT AS LEARNING 1) To prove that chlorophyll,CO ₂ , light is essential for photosynthesis. Students will observe the

			<p>3) To comprehend that the heterotrophic Nutrition involves the intake of complex material prepared by other organisms.</p> <p>4) To understand and summarize the various steps of digestion in human beings in the Alimentary canal and the mode of absorption in the small intestine.</p> <p>5) Students will be able to learn and understand the concept of respiration and can compare between aerobic and anaerobic respiration.</p> <p>6) They will be able to comprehend and relate how in Cellular respiration, complex organic compounds such as glucose are broken down to provide energy in the form of ATP which is used to provide energy for other reactions in the cell.</p>	<p>4) Identify the process of fermentation is due to anaerobic respiration which is used in production of alcohol, vinegar and bakery industries as well as in making of dosa etc. and also heavy exercise leads to anaerobic respiration which is responsible for cramps in muscle in human</p> <p>5) Apply their knowledge that improper functioning of these organs like lungs, heart and kidneys .</p>	<p>other disorder is due to improper function of Different organs of digestive system.</p> <p>5) They were able to synthesized the importance of light, water and CO₂ for the light and dark reaction of photosynthesis along with the role of stomata.</p> <p>7) Students understood the importance of different life process and were able to understand mechanism of circulatory system where materials such as oxygen, carbon-dioxide, food and excretory products are transported.</p> <p>7) They were able to analyze that cramps in muscle as well as bakery products, south Indian dishes and production of</p>	<p>activity carefully and note down all the components required for photosynthesis</p> <p>ASSESSMENT FOR LEARNING NUTRITION</p> <p>1) Following activity will be conducted in lab were students will prepare temporary mount of a leaf peel to show stomata. They will observe the slide and identify the stomata and will draw a well labeled diagram as stomata helps in the exchange of gases.</p> <p>RESPIRATION</p> <p>2) An activity will be conducted in a</p>
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			<p>7) They will be able to infer the mechanism of circulatory system where materials such as oxygen, carbon-dioxide, food and excretory products are transported.</p> <p>8) They will explore their critical thinking by studying the importance of transport of water, minerals, food and other materials in highly differentiated plants</p> <p>9) To enhance the ability to understand the mechanism of excretion in human beings in the form of soluble nitrogenous compounds.</p> <p>10) To understand and summarize about different technologies and its implementation for survival like renal dialysis, pacemaker etc.</p>		<p>alcohol is due to anaerobic respiration.</p> <p>8) They were able to analyze the importance of valve in veins and heart and will also be able to evaluate the reason behind cardiovascular diseases and BP.</p> <p>9) They were able to analyze the importance of blood group and Rh factors play major role in blood transfusion and childbirth.</p> <p>10) They were able to recognize that problem in improper functioning of kidney or nephron leads to accumulation of toxic substances in the blood which are fatal.</p> <p>11) They were able to synthesize the importance of dialysis, heart surgery, pacemaker for vital function.</p>	<p>lab were student will be given opportunity to do and observe themselves that CO₂ is given out during the process of respiration.</p> <p>ASSESSMENT OF LEARNING</p> <p>Notes</p> <p>Question-Answers</p> <p>MCQ's</p> <p>Diagrams</p> <p>Assertion and Reasoning</p> <p>Questions</p> <p>Case study</p> <p>Questions</p> <p>Worksheets</p> <p>PYQS</p>
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<p>July/Aug Date- 16/07/2024 to 14/08/2024</p>	<p>Ch.6 Control and Coordination</p>	<p>Introduction Explanation Discussion Experimentation Videos</p>	<p>Students will be able to: 1) Describe the structure and types of neurons. 2) Explain Reflex action, Involuntary and Voluntary actions. 3) Describe the Central Nervous system- Structure of Brain and its Function. 4) To understand the role of Plant hormones, plant Movement. 5) Understand the role of Human hormones and their secretions. 6) Comprehend that control and coordination in human beings is the sum of nervous system and endocrine system.</p>	<p>Students will be able to learn to appreciate the leadership quality of brain to control hunger, anxiety, anger, memory, thirst, riding, writing, balancing of the body, body postures etc.</p> <p>1) Sensitize the body response during adverse situation like touching hot water or any utensils, when suddenly any foreign object comes in contact with our eyes, etc through reflex action.</p> <p>2) Infer the effect of hormones for the changes in human after puberty .</p> <p>3) Appreciate the role of hormone to cope stress.</p> <p>4) Realize the role of plant hormones in</p>	<p>Students have learnt to : Illustrate and describe the structure of brain.</p> <p>1) Analysed the concept of reflex action, voluntary and involuntary actions and could apply in real life Situation.</p> <p>2) Analyse and interpret the role of different hormones and its secretion in the life span of the organism.</p> <p>3) Interpret and describe various plant movements With phytohormones</p>	<p>ASSESSMENT AS LEARNING 1) A video on Brain, highlighting the different parts of brain and its function. There after the teacher will cite different daily life example to explain the various parts of brain that are responsible to carry various function. 2) Reflex action will be introduced by demonstrating some activities in which the student responds to the stimuli without thinking. The students will be asked to make the diagram of</p>
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				<p>regulating the process of phototropism, geotropism, hydrotropism, chemotropism etc.</p> <p>5) Illustrate examples from daily life to relate the effect of hormones on living system.</p>		<p>brain and label its various parts & relate with different the physiological activity controlled by it.</p> <p>ASSESSMENT OF LEARNING Notes Question-Answers MCQ's Diagrams Assertion and Reasoning Questions Case study Questions Worksheets PYQS</p>
<p>August/Sept Date- 16/08/2024 to 30/09/202</p>	<p>Ch.7 How do Organisms Reproduce?</p>	<p>Introduction Explanation Discussion Experimentation Demonstration Videos</p>	<p>1) Students will be able to learn and understand the concept DNA its structure, DNA copying and its importance. 2) They would be able to analyze and relate the concept of DNA copying</p>	<p>1) To emphasized on development of skills like observational, experimental and inculcating values like Awareness, Responsibility, Accuracy.</p>	<p>1) Learner learnt and understood about the concept DNA its structure, DNA copying and its importance.</p>	<p>ASSESSMENT FOR LEARNING 1. Identification of the different parts of an embryo of a dicot seed. (Pea, gram</p>

			<p>with variation.</p> <p>3) They would be able to acquire knowledge about different modes of reproduction and apply the concept in different living organisms.</p> <p>4) They would be able to comprehend the mechanism of sexual reproduction in flowering plants and human beings.</p> <p>5) They will be able to analyze and think critically about the changes in the human body at puberty.</p> <p>6) They will explore their critical thinking by studying the importance of reproductive health their problems and Strategies.</p>	<p>2) Students will be able to identify the significance of bright colour of flower for pollination.</p> <p>3) They will be able to interpret that night blooming flowers are white whereas the day blooming flowers are brightly coloured.</p> <p>4) The noticeable changes that occur during puberty such as increase in height, body shape, change in voice of males, appearance of pimples Mental and emotional maturity bodily changes during Adolescence.</p> <p>5) Myths and taboos regarding bodily changes during Adolescence.</p> <p>6)To get aware regarding prevention of sexually transmitted Disease.</p>	<p>2) Students were able to identify the significance of bright colour of flower for pollination.</p> <p>3) Students were able to share their opinion on DNA copying with variation.</p> <p>4) They were able to evaluate different types of High-Yielding varieties of wheat and rice.</p> <p>5) They were able to explore their critical thinking by studying the importance of reproductive health their problems and Strategies.</p> <p>6) They were able to apply their knowledge to relate congenital</p>	<p>or red kidney bean)</p> <p>2. Studying binary fission in amoeba and budding in yeast with the help of prepared slides.</p> <p>ASSESSMENT OF LEARNING</p> <p>Notes Question-Answers MCQ's Diagrams Assertion and Reasoning Questions Case study Questions Worksheets PYQS</p>
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				7) To relate the importance of government raising awareness campaign regarding birth control measures.	anomalies are due to genetic and environmental factors. 7) They were to analyzing importance and male and female sex ratio and sex determination of child is male.	
October	REVISION OF TERM I EXAMINATION	Discussion	Able to remember previous topics.	To learn and recall keywords.	Revision of previous topics.	ASSESSMENT AS LEARNING
November Date- 11/11/2024 to 30/11/2024	Ch.8 Heredity & Evolution (Topic Excluded- Evolution)	Introduction Explanation Discussion Experimentation Videos	1) Students will be able to learn and understand the concept DNA its structure, DNA copying and its importance in variation. 2)They will be able to understand variations arising during the process of reproduction can be inherited. 3)Students will comprehend about	1)To emphasized on development of skills like observational, experimental,knowledge ,understanding, analysis, interpretation and inculcating values like Awareness, Responsibility, responsibility, coordination and empathy. 2)They will be able to interpret inheritance of	1) Learner learnt and understood about the concept DNA its structure, DNA copying and its importance in variation. 2) Students were able to share their opinion on sex determination in Humanrelationships. 3) They were able to explore their critical thinking that illegal abortion of female foetus	ASSESSMENT AS LEARNING 1) To observe the ears of all students in class to study the rule of inheritance.To make a punnet square for dihybrid cross. ASSESSMENT OF LEARNING Notes

			<p>different Mendel laws of inheritance.</p> <p>4) They will be able to understand about sex determination in human</p>	<p>blood groups in human being.</p>	<p>is a crime that affects sex ratio in future.</p>	<p>Question-Answers MCQ's Diagrams Assertion and Reasoning Questions Case study Questions Worksheets PYQS</p>
<p>December Date- 02/12/2024 to 31/12/2024</p>	<p>Ch.14 Our Environment</p>	<p>Introduction Explanation Discussion Videos Demonstration</p>	<p>1) To make the students learn and understand about the various abiotic and biotic factors that interact in the environment. 2) Students will learn about various food chains and webs in ecosystems. 2) They will be able to analyze the impact of human in the deteriorating environment. 3) They will be able to interpret the cause of global warming and depletion of the ozone layer. 4) They will learn about how to use and manage</p>	<p>1) To emphasize on development of skills like observational, knowledge, understanding, analysis, interpretation and inculcating values like awareness, responsibility, coordination and empathy towards environment. 2) Students will be able to identify that tertiary consumers require more energy according to 10% law and therefore depends on multiple food options.</p>	<p>1) Learner learnt and understood about the various abiotic and biotic factors that interact in the environment. 2) Students were able to identify that tertiary consumers require more energy according to 10% law and therefore depends on multiple food options. 3) Students were able to share their opinion on the cause of global warming and depletion of the ozone layer. 4) They were able to evaluate that increased</p>	<p>ASSESSMENT OF LEARNING</p> <p>Notes Question-Answers MCQ's Diagrams Assertion and Reasoning Questions Case study Questions Worksheets PYQS</p>

			biodegradable substances. 6) They will be able to analyze Three concepts of 'R'. 7) The students would be familiarized with various methods to manage the garbage	3) They will be able to interpret layer of 4) atmosphere in which ozone is present (stratosphere) and its importance. 5) They will be able to evaluate that increased increase in size of ozone hole is due to human activities. 6) They will be able to interpret the importance of bacteria and decomposers and consequences if decomposers are removed from environment.	increase in size of ozone hole is due to human activities. 5) They were able to explore their critical thinking with various methods to manage the garbage 6) They were able to apply their knowledge to relate Three concepts of 'R'.	
January	REVISION OF BOARD EXAMINATION	Discussion	Able to remember previous topics.	To learn and recall keywords.	Revision of previous topics.	ASSESSMENT AS LEARNING