

CLASS – VII
LESSON PLAN BIOLOGY
CHAPTER-10: RESPIRATION IN ORGANISMS

Unit	Biology (Chapter 10: Respiration in Organisms)
Class Transaction	Total: 14 periods (approx. 40 min each)
Pre-requisite for the course	This lesson requires 1. Basic knowledge of respiration. 2. Basic knowledge of different organs involved in respiration which students had already learnt in class VI.
Assessment of qualifying knowledge	1. Written test 2. Lab activity 3. Group Discussion 4. HW notebook 5. Subject Enrichment Activities
Objective	Students will be able to:- *Explain how do we respire? * differentiate between breathing and respiration. * differentiate between aerobic and anaerobic respiration. * test for the gas which we breathe out. * mode of breathing in cockroach, earthworm, fish and plant. DOL -1,2,3.
Learning Outcomes	<u>KNOWLEDGE-</u> <i>Students will know and understand</i> 1. The terms breathing, respiration types of respiration 2. Explain how do we respire? 3. Difference between breathing and respiration. 4. Difference between aerobic and anaerobic respiration. 5. The test for the gas CO₂ which we breathe out. 6. Different ways of breathing in cockroach, earthworm, fish and plant. <u>SKILLS-</u> <i>Students would be able to</i> 1. Collaborate with each other to explain the different organs involved in respiration in human, cockroach, fish and frog. 2. Critically analyse ‘the importance of breathing clean air. 3. Use analytical and critical skills to find why cases of bronchitis and asthma are prevalent in over populated cities and industrial towns. 4. What is the importance of respiratory system in our diet? 5. Built character amongst themselves by discussing /communicating the

	importance of exercise and clean air for healthy living. Attitudes and beliefs- <i>Students will be able to</i> Develop citizenship by visualizing and observing the importance of keeping fit and exercising regularly .To sensitize others by keeping the surroundings clean and avoiding excess usage of resources.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- <i>Brain Storming</i>-The class would start with a discussion on what the students have already learnt in the previous classes and hence what is it that they would learn now. They would also be told the significance of the topic that they would be studying. <i>Introduction of the topic</i>- ppt and Digital Content would be shared <i>Guided practice followed by Independent Practice</i>- NCERT questions to be discussed in the classroom. Techniques to be used: Independent reading Quiz Drawing diagrams MCQ Peer Assessment Lab Activities Graphic Organizers Any Other Group learning- The class will be divided in the group of 5 students. <i>Circle the Sage</i>- The question will be asked by the teacher about the process of respiration and the students who know the answer will stand in various corners of the room. (Communication, Collaboration) Differentiation- The students in a group of 10 will be presenting a skit on importance of breathing correctly. (Character, Citizenship) Questioning- Multiple <i>level question</i>- Teacher will prepare a list of question on the topic “Why do we respire”. (Critical thinking, Communication)
Resources	Text Book: NCERT text book for Science. Reference Book 1. CBSE Exemplar

Self Study, Home Work, Assignments	Independent Practice: Students would do the questions in their H.W notebooks as mentioned in the monthly planner by which we can assess their critical thinking and creativity HW notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 marks On time submission.....1 mark Presentation/ Neatness(creativity).....1 mark Content(critical thinking and creativity).....3 marks It is also advised that the students come to the class with proper background knowledge of the topic under discussion. They can refer to the resources stated above.
Assessments	4 UNIT TESTS (25, 25, 25, 25).....100 Marks HALF YEARLY EXAMINATION.....80 Marks ANNUAL BOARD EXAMINATION.....80 Marks INTERNAL ASSESSMENTS.....40 Marks PERIODIC TEST By administering pen papertest we assess creativity and critical thinking. Subject Enrichment 10 Marks With the help of subject enrichment activities we assess communication collaboration, character building and citizenship (Skit on importance of physical fitness in our daily life). Note Book Submission 10 Marks
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: <i>For gifted students:</i> • Encouragement for referring other resources <i>For weak students:</i> • Buddy help to be provided • Provide grade-up classes <i>For differently abled students:</i> • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes

Topic	DAY 1-Introduction
Class Transaction	40 min each
Pre-requisite for the course	This topic requires basic knowledge of breathing and why do we respire which they have already studied in class VI
Assessment of qualifying knowledge	Facilitator will ask few questions regarding respiration 1. What is breathing and how is it different from respiration. 2. Why is there a need to breakdown food?
Objective	Student will be able to understand the difference between breathing and respiration and the source of energy to carry out various life processes.
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> The relationship between breathing and respiration. Appreciate the need of importance of source of energy to carry out various life processes. <u>SKILLS AND COMPETENCIES</u>- <i>Students would be able to</i> Critically analyse the role of clean air for breathing.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Group learning- The class will be divided in the group of 5 students. Game board will be used- Each group is given a game board with questions on it. Students take turns rolling the dice if they are able to answer they move forward otherwise they go back to the spot they were on before. (Communication, Collaboration) <i>Guided practice followed by Independent Practice</i>- NCERT questions to be discussed in the classroom. Techniques to be used: DOL 1,2 Peer Assessment Student -teacher interaction, Wipro- G.O.s(compare- contrast matrix), silent/ loud reading, collaborative learning, Research work/surveys
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Closure	Involving students in summarizing by asking them to prepare questions based on the topic.

Self Study, Home Work, Assignments	Independent Practice: Questions for game board are revised.
Assessments	Oral quiz
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: <i>For gifted students:</i> • Encouragement for referring other resources <i>For weak students:</i> • Buddy help to be provided • Provide grade-up classes <i>For differently abled students:</i> • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes
Topic	DAY 2 Aerobic respiration
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of taking in air rich in oxygen and giving out air rich in carbon dioxide.
Assessment of qualifying knowledge	Facilitator asks the students to explain that food is broken down into carbon dioxide and water using oxygen.
Objective	Given the content (topic) the students will be able to discuss about the reactants and products during aerobic respiration
Learning Outcomes	KNOWLEDGE- Students will know and understand Students will be able to Explain the process of aerobic respiration. SKILLS AND COMPETENCIES- Students would be able to Communicate with each other about the breakdown of glucose in presence of oxygen to give energy.
Transaction Methodology	Transaction would proceed in the following manner- Techniques to be used:

(The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	DOL 1,2 Quiz Wipro- G.O.s Daily Practice Problem Student -teacher interaction, silent/ loud reading, collaborative learning, Research work/surveys
Resources	Text Book: NCERT text book for Science. Reference Book
Closure	Chemical equation for the reaction to be written on board by the students
Self Study, Home Work, Assignments	Independent Practice: Students would do the questions in their H.W notebooks as mentioned in the monthly planner. HW notebooks to be marked as per the given plan: Assessment Parameters: The total marks for the activity is 5 marks On time submission.....1 mark Presentation/ Neatness.....1 mark Content.....3 marks It is also advised that the students come to the class with proper background knowledge of the topic under discussion. They can refer to the resources stated above.
Assessments	Assessment of the chemical equation for the process of aerobic respiration.
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: For gifted students: • Encouragement for referring other resources For weak students: • Buddy help to be provided • Provide grade-up classes For differently abled students: • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes
Marks	The weightage would be given by CBSE.

Topic	DAY 3 Anaerobic respiration
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of the process of anaerobic respiration and how it is different from aerobic respiration.
Assessment of qualifying knowledge	The class will be divided into different groups and teacher will ask the question as to what happens if there is no oxygen available to an organism or to any body part like muscle.
Objective	Given the content (topic) the students will be able to discuss about the consequences of lack of oxygen to aerobic organisms and anaerobic organisms.
Learning Outcomes	KNOWLEDGE- Students will be able to Understand the difference between aerobic and anaerobic respiration. SKILLS AND COMPETENCIES- Students would be able to Communicate with each other about the use of anaerobes in baking industry and making of alcohol.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Group learning (BrainStorming)- The class will be divided into group of 4 students and students will be asked to discuss the use of yeast in baking industry by Simultaneous Round Table where each write a response and pass it clockwise so each teammate can add to prior response. Students will be asked to record their observation and draw the conclusion (Communication, Collaboration) Techniques to be used: DOL 1,2,3 Wipro- G.O.s(Compare and contrast matrix) Daily Practice Problem Student -teacher interaction, silent/ loud reading, collaborative learning, Research work/surveys
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Closure	Muddiest point by the teacher

Self Study, Home Work, Assignments	Questions/ Answers
Assessments	After the demonstration and explanation of the activity an MCQ based work sheet will be given to students to check their understanding for the concept
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: For gifted students: • Encouragement for referring other resources For weak students: • Buddy help to be provided • Provide grade-up classes For differently abled students: • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes
Marks	The weightage would be given by CBSE.
Topic	DAY 4 Breathing
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of the process of breathing.
Assessment of qualifying knowledge	The class will be divided into different groups and under teachers supervision will do the activity of holding breath.
Objective	Given the content (topic) the students will be able to discuss the time one can hold ones breath .
Learning Outcomes	KNOWLEDGE- Students will know and understand That one cannot survive for long without breathing. SKILLS AND COMPETENCIES- Students would be able to Communicate with each other about the movement of the abdomen of dogs, cows and cats as they breathe. Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic.

Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Group learning- The class will be divided in the group of 5 students. They will do the activity and note down the time each one can hold their breath and tabulate their findings. (Collaboration) Techniques to be used: DOL 2 Quiz Student -teacher interaction, silent/ loud reading, collaborative learning, Research work/surveys
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Closure	Summarization by students with a one minute paper.
Self Study, Home Work, Assignments	Independent Practice- Differentiate between inhalation and exhalation.
Assessments	One minute test
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: For gifted students: • Encouragement for referring other resources For weak students: • Buddy help to be provided • Provide grade-up classes For differently abled students: • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes
Marks	The weightage would be given by CBSE.
Topic	DAY 5 - Breathing rate

Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of breathing.
Assessment of qualifying knowledge	The class will be taken outside and divided into different groups and teacher will ask some student to sit, some to run in and some to jog. After the activity discuss the breathing rate in different situations.
Objective	Given the content (topic) the students will be able to discuss about the difference in breathing rate.
Learning Outcomes	KNOWLEDGE- Students will know and understand the breathing rate. SKILLS AND COMPETENCIES- Students would be able to Compare the breathing rate in different situations.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Group learning- The question will be asked by the teacher about the different breathing rate in different situations. (Communication, Collaboration) Techniques to be used: DOL 1,2 Wipro- G.O.s(web chart)
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Closure	Summarization by students with the muddiest point by the teacher
Self Study, Home Work, Assignments	Independent Practice- List the various situations where the breathing rate vary.
Assessments	Peer Assessment by giving various situations.
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: For gifted students: • Encouragement for referring other resources

	For weak students: • Buddy help to be provided • Provide grade-up classes For differently abled students: • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes
	DAY 6 - How do we breathe?
	40 min
	This topic requires Basic knowledge of respiratory system .
Marks	The class will be divided into different groups and teacher will ask the group to list the organs involved in respiration.
Topic	Given the content (topic) the students will be able to discuss about the mechanism of breathing.
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of the organs of respiration.
Assessment of qualifying knowledge	Write down the name of the organs involved in respiration.
Objective	Given the content (topic) the students will be able to understand the path followed by air during respiration.
Learning Outcomes	SKILLS AND COMPETENCIES- Students would be able to Collaborate and communicate with each other about the role of various organs in respiration.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Brain Storming-Students would be able to collaborate and communicate with each other about the function of nostrils and wind pipe. Techniques to be used: Student -teacher interaction, collaborative learning, Techniques to be used: DOL 1,2

	Quiz Student -teacher interaction, silent/ loud reading, collaborative learning, Research work/surveys
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Closure	One minute paper
Self Study, Home Work, Assignments	Practice of Questions of NCERT
Assessments	Real time feedback to students on the basis of an oral quiz
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: For gifted students: • Encouragement for referring other resources For weak students: • Buddy help to be provided • Provide grade-up classes For differently abled students: • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes
Marks	The weightage would be given by CBSE.
	DAY 7 - How do we breathe? (contd)
	40 min
	This topic requires Basic knowledge of respiratory system .
Marks	The class will be divided into different groups and teacher will ask the group to list the organs involved in respiration.
Topic	Given the content (topic) the students will be able to discuss about the mechanism of breathing.
Class	40 min

Transaction	
Pre-requisite for the course	This topic requires Basic knowledge of the organs of respiration.
Assessment of qualifying knowledge	Write down the name of the organs involved in respiration.
Objective	Given the content (topic) the students will be able to understand the path followed by air during respiration.
Learning Outcomes	SKILLS AND COMPETENCIES- Students would be able to Collaborate and communicate with each other about the role of various organs in respiration.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Inside – Outside Circle Students stand in two concentric circles with students facing each other, pairs discuss and then one child moves to the next partner. This is done to list down the function of lungs and chest cavity. Transaction would proceed in the following manner- Brain Storming-Students would be able to collaborate and communicate with each other about the function of lungs and chest cavity. Techniques to be used: Student -teacher interaction, collaborative learning, Techniques to be used: DOL 1,2 Quiz Student -teacher interaction, silent/ loud reading, collaborative learning, Research work/surveys
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Closure	One minute paper
Self Study, Home Work, Assignments	Practice of Questions of NCERT

Assessments	Real time feedback to students on the basis of an oral quiz
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: For gifted students: • Encouragement for referring other resources For weak students: • Buddy help to be provided • Provide grade-up classes For differently abled students: • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes
	DAY 8 - How do we breathe? (contd)
	40 min
	This topic requires Basic knowledge of movement of ribs and diaphragm during inhalation and exhalation. .
Marks	The class will be divided into different groups and teacher will ask the group to list the organs involved in respiration.
Topic	Given the content (topic) the students will be able to discuss about the movement of ribs and diaphragm during inhalation and exhalation.
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of the organs of respiration.
Assessment of qualifying knowledge	Explain the respiratory system listing the organs in the form of a flow chart.
Objective	Given the content (topic) the students will be able to understand the working of our respiratory system.
Learning Outcomes	SKILLS AND COMPETENCIES- Students would be able to Collaborate and communicate with each other about the cause of sneezing and what precautions should be taken while sneezing and why?
Transaction	Transaction would proceed in the following manner-

Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Brain Storming-Students would be able to collaborate and communicate with each other about the function of lungs and chest cavity. Techniques to be used: Student -teacher interaction, collaborative learning, Techniques to be used: DOL 1,2 Quiz Student -teacher interaction, silent/ loud reading, collaborative learning, Research work/surveys
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Closure	One minute paper
Self Study, Home Work, Assignments	Practice of Questions of NCERT
Assessments	Real time feedback to students on the basis of an oral quiz
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: For gifted students: • Encouragement for referring other resources For weak students: • Buddy help to be provided • Provide grade-up classes For differently abled students: • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes
	DAY 9 – Some diseases related to the respiratory system.
	40 min

	This topic requires Basic knowledge of movement of some air borne infections. .
Marks	The class will be divided into different groups and teacher will ask the group to list the diseases to the lungs.
Topic	Given the content (topic) the students will be able to discuss the diseases related to the lungs and precautions to be taken to prevent air borne infection.
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of the organs of respiration.
Assessment of qualifying knowledge	Discuss the cause and effect of bronchitis and asthma, the role of smoking,pan masala etc on health.
Objective	Given the content (topic) the students will be able to understand the nuisance created by tobacco and how by actually not smoking we are still vulnerable to smoke.
Learning Outcomes	SKILLS AND COMPETENCIES- Students would be able to Collaborate and communicate with each other about the menace of breathing air rich in pollutants.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Brain Storming-Students would be able to collaborate and communicate with each other about what role we as citizens can play in keeping our areas clean and increasing our resistance. Techniques to be used: Student -teacher interaction, collaborative learning, Techniques to be used: DOL 1,2 Quiz Student -teacher interaction, silent/ loud reading, collaborative learning, Research work/surveys
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar

Closure	Muddiest point
Self Study, Home Work, Assignments	Practice of Questions of NCERT
Assessments	Real time feedback to students on the basis of an oral quiz
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: For gifted students: • Encouragement for referring other resources For weak students: • Buddy help to be provided • Provide grade-up classes For differently abled students: • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes
	DAY 10 – What do we breathe out?
	40 min
	This topic requires Basic knowledge of the air we inhale or exhale is a mixture of gases. .
Marks	MODEL MAKING The class will be divided into group of five and teacher will ask the group to make a model to show mechanism of breathing.
Topic	Given the content (topic) the students will be able to make a model to show the mechanism of breathing.
Class Transaction	40 min
Pre-requisite for the course	This topic requires The material for model making.
Assessment of qualifying knowledge	To be able to make a working model.
Objective	Given the content (topic) the students will be able to increase or decrease the size of the chest cavity by changing the size of the diaphragm.
Learning Outcomes	SKILLS AND COMPETENCIES- Students would be able to

	Collaborate and make a working model.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Brain Storming-Students would be able to Collaborate and keep changing the size of the chest cavity. Techniques to be used: Student -teacher interaction, collaborative learning, Techniques to be used: DOL 1,2 Student -teacher interaction, silent/ loud reading, collaborative learning,
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Closure	In groups they give a small presentation.
Self Study, Home Work, Assignments	Practice of Questions of NCERT
Assessments	Real time feedback to students on the basis of an oral quiz
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: For gifted students: • Encouragement for referring other resources For weak students: • Buddy help to be provided • Provide grade-up classes For differently abled students: • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes
	DAY 11: To test the presence of CO ₂ in exhaled air.
	40 min
	This topic requires

	Basic knowledge of the gas that is exhaled. .
Marks	Demonstration by the teacher: The class will be divided into different groups and teacher will ask the group to test the presence of carbon dioxide gas using lime water.
Topic	Given the content (topic) the students will be able to exhale air in a test tube filled with lime water.
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of the CO ₂ test.
Assessment of qualifying knowledge	Draw diagram of exhaling carbon dioxide in a test tube.
Objective	Given the content (topic) the students will be able to see the change in colour of lime water from transparent to milky.
Learning Outcomes	SKILLS AND COMPETENCIES- Students would be able to Collaborate and do the test.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Brain Storming-Students would be able to collaborate and see a uniform pattern in lime water test. Techniques to be used: Student -teacher interaction, collaborative learning, DOL 1,2 Collaborative learning, Research work/surveys
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Closure	Muddiest point
Self Study, Home Work, Assignments	Practice of Questions of NCERT Discuss the cause and effect of bronchitis and asthma because of excessive presence of carbon dioxide.

Assessments	Real time feedback to students on the basis of an oral quiz
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: For gifted students: • Encouragement for referring other resources For weak students: • Buddy help to be provided • Provide grade-up classes For differently abled students: • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes
	DAY 12: Breathing in other animals.
	40 min
	This topic requires Basic knowledge of the mechanism of breathing .
Marks	The class will be divided into different groups and teacher will ask the group to explain the different organs involved in respiration.
Topic	Given the content (topic) the students will be able to discuss various organism and their organ for respiration.(cockroach)
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of the organs of respiration.
Assessment of qualifying knowledge	Discuss the various organs involved in respiration of cockroach.
Objective	Given the content (topic) the students will be able to draw the tracheal tubes of cockroach.
Learning Outcomes	SKILLS AND COMPETENCIES- Students would be able to Collaborate and discuss respiration in other insects.
Transaction Methodology (The teacher	Transaction would proceed in the following manner- Brain Storming-Students would be able to collaborate and list the various insects where tracheal tube is present.

can use the mentioned techniques, wherever applicable, and can use any other too.)	Techniques to be used: Student -teacher interaction, collaborative learning, DOL 1,2 Collaborative learning, Research work/surveys
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Closure	Muddiest point
Self Study, Home Work, Assignments	Practice of Questions of NCERT
Assessments	Real time feedback to students on the basis of an oral quiz
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: For gifted students: • Encouragement for referring other resources For weak students: • Buddy help to be provided • Provide grade-up classes For differently abled students: • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes
	DAY 13: Breathing in other animals.
	40 min
	This topic requires Basic knowledge of the mechanism of breathing .
Marks	The class will be divided into different groups and teacher will ask the group to explain the different organs involved in respiration.
Topic	Given the content (topic) the students will be able to discuss various organism

	and their organ for respiration.(frog and fish)
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of the organs of respiration.
Assessment of qualifying knowledge	Discuss the various organs involved in respiration of frog and fish.
Objective	Given the content (topic) the students will be able to draw the organs of respiration in frog and fish.
Learning Outcomes	SKILLS AND COMPETENCIES- Students would be able to Collaborate and discuss respiration in other amphibians and fishes.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Brain Storming-Students would be able to collaborate and list the various amphibians, fishes and mammals like whales and dolphin. Techniques to be used: Student -teacher interaction, collaborative learning, DOL 1,2 Collaborative learning, Research work/surveys
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Closure	Fan and Pick
Self Study, Home Work, Assignments	Practice of Questions of NCERT
Assessments	Real time feedback to students on the basis of a worksheet.
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: For gifted students: • Encouragement for referring other resources

	For weak students: • Buddy help to be provided • Provide grade-up classes For differently abled students: • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes
	DAY 14: Do plants also respire?
	40 min
	This topic requires Basic knowledge of the breathing in plants. .
Marks	The class will be divided into different groups and teacher will ask the group to explain the mechanism of respiration in plants.
Topic	Given the content (topic) the students will be able to discuss organ for respiration in plants.
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of the organs of respiration.
Assessment of qualifying knowledge	Discuss whether roots which are underground also take in oxygen. If so how?
Objective	Given the content (topic) the students will be able to draw the organs of respiration in plants.
Learning Outcomes	SKILLS AND COMPETENCIES- Students would be able to Collaborate and discuss the consequences of over watering the plant.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Brain Storming-Students would be able to List the various parts in a plant that help in respiration. Techniques to be used: Student -teacher interaction, collaborative learning, DOL 1,2 Collaborative learning,

	Research work/surveys
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Closure	Muddiest point
Self Study, Home Work, Assignments	Practice of Questions of NCERT
Assessments	Real time feedback to students on the basis of an oral quiz
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: For gifted students: • Encouragement for referring other resources For weak students: • Buddy help to be provided • Provide grade-up classes For differently abled students: • Ignore spelling mistakes. • Call parents at regular intervals • Provide grade-up classes
	Closure: Game board for revision.