DELHI PUBLIC SCHOOL GHAZIABAD
CLASS – X
LESSON PLAN
CHAPTER-6: LIFE PROCESSES

Unit	Biology (Chapter 6: Life Processes)
Class Transaction	Total: 15 periods (approx. 40 min each)
Pre-requisite for the course	This lesson requires 1. Basic knowledge of characteristics shown by living organisms. 2. Basic knowledge of life processes which students had already learnt in class VII.
Assessment of qualifying knowledge	1. Written test 2. Lab activity 3. Group Discussion 4. HW notebook 5. FA Activites like Role Play on various systems etc.
Objective	Given the content (chapter) the students will be able to describe the various life processes present in plants and animals and can explain the various steps involved in these processes and can draw the diagrams of various systems.
Learning Outcomes	KNOWLEDGE- *Students will know and understand* • Different modes of nutrition in organisms • Role of various parts of the human alimentary canal in digesting and absorbing food. • Define respiration and explain its importance in plants and animals. • Explain the system of transportation in plants and understand the differences between animal transportation and plant transportation. • Define excretion and explain its importance in organisms • Explain the process of blood filtration through the nephron. • Explain the methods of excretion in plants and understand the differences between animal excretion and plant excretion. • Use analytical skills to visualize the given scenario and use the concepts learnt in everyday problems like what is the relationship between life style and blood pressure etc SKILLS- *Students would be able to* • **Critically analyse** various physiological processes related to various systems in plants and animals.

	• Appreciate the importance of different organs present in various systems and how effectively they **collaborate** with each other so that different systems can work effectively. • Design **Creative methods/techniques** to bring a positive change in the life style so as to prevent the various diseases related to various system. • Built **character** amongst themselves by discussing /**communicating** the importance of healthy life style in our daily life • Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic. • They can **collaborate with** each other to prepare the slide of leaf peel to show the stomata and therefore can appreciate the role of stomata in the plant. Attitudes and beliefs- *Students will be able to* Develop **citizenship** by visualizing and observing the given scenario(High B.P, Heart Failure, Kidney failure) in day to day lives and present it in form of a skit to **sensitize others**
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*-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. Teacher will ask few questions to introduce the topic • How do we tell the difference between what is alive and what is not alive? • What are the characteristics shown by living organisms? • What are the maintenance processes in living organisms *Introduction of the topic*- PPT and Digital Content would be shared Active learning- *Frayer Model* on different methods of excretion in plants and different modes of respiration in organisms. (**Critical thinking)** Group learning- The class will be divided in the group of 5 students. *Circle the Sage*- The question will be asked by the teacher about the different parts of alimentary canal and the students who knows the answer will stand at the various corners of the room. **(Communication, Collaboration)** Differentiation- The students in a group of 10 will be presenting a skit on transportation system in plants and animals and how in each system

	different components are interdependent on each other . (**Character, Citizenship)** Questioning- *Multiple level question*- Teacher will prepare a list of question about the respiration in plants and animals and will ask these questions during discussions. (**Critical thinking, Communication)** **Techniques to be used:** Quiz Daily Practice Problem MCQ Peer Assessment Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table,compare- contrast matrix), **Techniques to be used:** Quiz Daily Practice Problem MCQ Peer Assessment Lab Activities Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table,compare- contrast matrix), silent/ loud reading, collaborative learning, Hands on experiment Experimental work Any Other
Resources	Text Book: NCERT text book for Science. Reference Book 1. CBSE Exemplar 2. DPSG Spiral Weblinks: 1. http://www.britannica.com/ 3. www.extramarks.com 4. http://onlineteachers.co.in/

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: *Assessment Parameters*: 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 Subject Enrichment activity to be marked as per the given plan: Assessment Parameters: The total marks for the activity is 5 marks Hands on Experiment**(creativity)---------- 3 marks** Content presentation**(critical thinking and creativity)--- 1 mark** Discipline -------- 1 mark 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	**3 UNIT TESTS** (20, 30, 30)…….80 Marks **MID TERM EXAMINATION**……80 Marks **HALF YEARLY EXAMINATION**……80 Marks **PRE BOARD-I EXAMINATION** ……..80 Marks **PRE BOARD-II EXAMINATION**……. 80 Marks **ANNUAL BOARD EXAMINATION**…….80 Marks **PERIODIC TEST** **By administering pen paper test we assess creativity and critical thinking.** Average of the best two tests to be taken that will have a weightage of 10 marks. Best 2 Tests out of: Units tests, Midterm examination, Half Yearly examination. **INTERNAL ASSESSMENT** ……20 Marks Periodical Test 10 Marks **By administering pen paper test we assess creativity and critical thinking.** Subject Enrichment 05 Marks **With the help of subject enrichment activities we assess communication ,collaboration , critical thinking and creativity** Note Book Submission 05 Marks

	By **writing the answers of three levels of spiral question we can assess their** k**nowledge (Level 1 questions)** critical thinking**(Level 2 questions)**, creativity**(Level 3 questions)** Note Book Submission 05 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: *For gifted students:* • Spiral Level 3 questions to be done • Encouragement for referring other resources *For weak students:* • Spiral Level 1 to be completed • 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
Topic	DAY 1-Nutrition in Plants
Class Transaction	40 min each)
Pre-requisite for the course	This topic requires Basic knowledge of photosynthesis and the raw material required for photosynthesis which they had already studied in class vi and vii
Assessment of qualifying knowledge	Facilitator will give the demonstration of activity 6.1 and 6.2 and then will asks the students to list down the conditions essential for the process of photosynthesis and what will happen if any of the condition is not fulfilled?
Objective	Student will be able to understand that how does the process of photosynthesis will take place
Learning Outcomes	KNOWLEDGE- *Students will know and understand* • Discuss the importance of various factors required for photosynthesis. • Appreciate the need of each and every raw material required for the process SKILLS AND COMPETENCIES- *Students would be able to* • **Critically analyse** various conditions essential required for photosynthesis

	• Appreciate the importance of each and every raw material in the process of photosynthesis **collaboratively**
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. *Circle the Sage*- The question will be asked by the teacher about the different parts of alimentary canal and the students who knows the answer will stand at the various corners of the room. **(Communication, Collaboration)** *Guided practice followed by Independent Practice*- NCERT questions to be discussed in the classroom. **Techniques to be used:** Quiz Daily Practice Problem MCQ Peer Assessment Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table,compare- contrast matrix), silent/ loud reading, collaborative learning, Research work/surveys
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar DPSG Spiral Weblinks: http://www.britannica.com/ www.extramarks.com http://onlineteachers.co.in/
Closure	Involving students in summarizing by asking them to prepare questions based on the topic.
Self Study, Home Work, Assignments	**Independent Practice**: Spiral level 1Questions

Assessments	Assessments of mechanism of photosynthesis with the help of one minute paper 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:* • Spiral Level 3 questions to be done • Encouragement for referring other resources *For weak students:* • Spiral Level 1 to be completed • 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
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:* • Spiral Level 3 questions to be done • Encouragement for referring other resources *For weak students:* • Spiral Level 1 to be completed • 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
Topic	DAY 2 Heterotrophic nutrition and Nutrition in amoeba
Class Transaction	40 min

Pre-requisite for the course	This topic requires Basic knowledge of different modes of heterotrophic nutrition and formation of food vacuole in amoeba.
Assessment of qualifying knowledge	Facilitator asks the students to write the different modes of heterotrophic nutrition in their copy.
Objective	Given the content (topic) the students will be able to discuss that .
Learning Outcomes	KNOWLEDGE- Students will know and understand Students will be able to • Understand the different modes of heterotrophic nutrition SKILLS AND COMPETENCIES- Students would be able to • **Communicate** with each other that in case of unicellular organism how single cell is capable enough to perform all the functions. • 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. *Circle the Sage*- The question will be asked by the teacher about the different modes of heterotrophic nutrition and the students who knows the answer will stand at the various corners of the room. **(Communication, Collaboration)** Techniques to be used: Quiz 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 DPSG Spiral Weblinks: http://www.britannica.com/ www.extramarks.com

	http://onlineteachers.co.in/
Closure	Venn diagram to be drawn on the board with the help of 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 venn diagram on different modes of nutrition by peer assessment
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: • Spiral Level 3 questions to be done • Encouragement for referring other resources For weak students: • Spiral Level 1 to be completed • 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 Alimentary canal in human being
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of different organs in alimentary canal

Assessment of qualifying knowledge	The class will be divided into group of 4 students each and they will be given two test tubes containing 1% starch solution. First test tube will be left undisturbed and saliva would be added in second test tube. Students will be asked to record their observation and draw the conclusion
Objective	Given the content (topic) the students will be able to discuss the role of saliva in the digestion of starch.
Learning Outcomes	KNOWLEDGE- Students will know and understand Students will be able to • Understand the role of saliva SKILLS AND COMPETENCIES- Students would be able to • **Communicate** with each other that why does the colour change takes place only in one test tube and what is the role of saliva in this test. • 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 into group of 4 students each and they will be given two test tubes containing 1% starch solution. First test tube will be left undisturbed and saliva would be added in second test tube. Students will be asked to record their observation and draw the conclusion **(Communication, Collaboration)** Techniques to be used: Quiz 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 DPSG Spiral Weblinks: http://www.britannica.com/

	www.extramarks.com http://onlineteachers.co.in/
Closure	Muddiest point by the teacher
Self Study, Home Work, Assignments	Spiral level 1 questions
Assessments	After the demonstration and explaination 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: • Spiral Level 3 questions to be done • Encouragement for referring other resources For weak students: • Spiral Level 1 to be completed • 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 Alimentary canal in human being
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of different organs in alimentary canal
Assessment of qualifying knowledge	The class will be divided into group of 4 students each and they will be given one organ each present in digestive system and discuss about it in their respective group (**collaboration) and communicate** to each other on the basis of their structure, location and function
Objective	Given the content (topic) the students will be able to understand and explain the function of different organs present in alimentary canal

Learning Outcomes	KNOWLEDGE- Students will know and understand Students will be able to • Understand the function and structure of various organs present in alimentary canal SKILLS AND COMPETENCIES- Students would be able to **collaborate and communicate** to each other about the different organs of alimentary canal on the basis of their structure, location and function
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- *Circle the Sage*- The question will be asked by the teacher about the different parts of alimentary canal and the students who knows the answer will stand at the various corners of the room. **(Communication, Collaboration)** Techniques to be used: Quiz 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 DPSG Spiral Weblinks: http://www.britannica.com/ www.extramarks.com http://onlineteachers.co.in/
Closure	Summarisation by students with the muddiest point by the teacher
Self Study, Home Work, Assignments	Independent Practice-List the steps one need to take in order to prevent dental caries
Assessments	Peer assessment of the diagram drawn in the notebook of alimentary canal on the basis of drawing skills and labelling

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: • Spiral Level 3 questions to be done • Encouragement for referring other resources For weak students: • Spiral Level 1 to be completed • 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 - To prepare the temporary mount of a leaf peel**(SUBJECT ENRICHMENT ACTIVITY)**
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of stomata and steps which are followed while preparing the temporary mount of a leaf peel
Assessment of qualifying knowledge	The demonstration of preparing the temporary mount will be given by the teacher and then each and every step will be shown to the students in a sequential manner.
Objective	Given the content (topic) the students will be able to understand the location and function of stomata and how guard cells help in opening and closing of stomata.
Learning Outcomes	KNOWLEDGE- Students will know and understand Students will be able to • Understand the function of stomata
Transaction Methodology (The teacher can use the mentioned techniques, wherever	Student -teacher interaction, collaborative learning Demonstration

applicable, and can use any other too.)	
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar DPSG Spiral Weblinks: http://www.britannica.com/ www.extramarks.com http://onlineteachers.co.in/
Closure	Summarisation by students with the muddiest point by the teacher
Self Study, Home Work, Assignments	Independent Practice-Students will be asked to record the steps which will be followed for preparing the temporary mount.
Assessments	Oral response reagarding the stain and mounting material
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: • Spiral Level 3 questions to be done • Encouragement for referring other resources For weak students: • Spiral Level 1 to be completed • 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 6 - To prepare the temporary mount of a leaf peel**(SUBJECT ENRICHMENT ACTIVITY)**

Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of stomata and steps which are followed while preparing the temporary mount of a leaf peel
Assessment of qualifying knowledge	The demonstration of preparing the temporary mount will be given by the teacher and then each and every step will be shown to the students in a sequential manner.
Objective	Given the content (topic) the students will be able to understand the location and function of stomata and how guard cells help in opening and closing of stomata.
Learning Outcomes	SKILLS AND COMPETENCIES- Students would be able to **collaborate and** prepare the temporary mount of a leaf peel
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- *Hands on experiment*- Each and every student will prepare the temporary mount of leaf peel and observe the stomata under the microscope. **(Communication, Collaboration)** Techniques to be used: Student -teacher interaction, collaborative learning,
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar DPSG Spiral Weblinks: http://www.britannica.com/ www.extramarks.com http://onlineteachers.co.in/
Closure	One minute paper

Self Study, Home Work, Assignments	Practice of Questions based on practical
Assessments	Slide prepared by the students
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: • Spiral Level 3 questions to be done • Encouragement for referring other resources For weak students: • Spiral Level 1 to be completed • 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 7 Modes of respiration
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of respiration
Assessment of qualifying knowledge	**Activity 1:** Two test tubes containing limewater will be shown to the students. In test tube one air is passed from the pichkari and in test-tube two from the mouth The students will record their observation and draw their conclusion. **Activity 2:** Yeast powder will be added to sugar solution and then the students will be asked to record their observation and draw their conclusion.
Objective	Given the content (topic) the students will be able to understand the different modes of respiration
Learning Outcomes	KNOWLEDGE- Students will know and understand Students will be able to • Understand the mechsnism of respiration

	SKILLS AND COMPETENCIES- Students would be able to **collaborate and communicate** to each other about the different modes of respiration with the help of different activities conducted in the class.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Active learning- *Frayer Model* on different modes of respiration in organisms. (**Critical thinking)** Compare contrast matrix **Critical thinking)** **Fish bone chart (show cause effect)** Techniques to be used: Quiz 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 DPSG Spiral Weblinks: http://www.britannica.com/ www.extramarks.com http://onlineteachers.co.in/
Closure	Summarisation by students with the muddiest point by the teacher
Self Study, Home Work, Assignments	Exemplar question
Assessments	Fish bone chart drawn in the copy.
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: • Spiral Level 3 questions to be done • Encouragement for referring other resources

	For weak students: • Spiral Level 1 to be completed • 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 8 Respiration in Human beings
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of different organs in respiratory system
Assessment of qualifying knowledge	The class will be divided into group of 4 students each and they will be given one organ each present in digestive system and discuss about it in their respective group (**collaboration and communicate** to each other on the basis of their structure, location and function
Objective	Given the content (topic) the students will be able to understand and explain the function of different organs present in respiratory system
Learning Outcomes	KNOWLEDGE- Students will know and understand Students will be able to • Understand the function and structure of various organs present in respiratory system • SKILLS AND COMPETENCIES- Design **Creative methods/techniques** to bring a positive change in the life style so as to prevent the various diseases related to various system.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and	Transaction would proceed in the following manner- *Circle the Sage*- The question will be asked by the teacher about the different parts of respiratory system and the students who knows the answer will stand at the various corners of the room. **(Communication, Collaboration)** Techniques to be used: Quiz Daily Practice Problem Student -teacher interaction, silent/ loud reading, collaborative learning,

can use any other too.)	Research work/surveys
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar DPSG Spiral Weblinks: http://www.britannica.com/ www.extramarks.com http://onlineteachers.co.in/
Closure	Summarisation by students with the muddiest point by the teacher
Self Study, Home Work, Assignments	Spiral level 2 Questions
Assessments	Peer assessment of the diagram drawn in the notebook of respiratory system on the basis of drawing skills and labelling
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: • Spiral Level 3 questions to be done • Encouragement for referring other resources For weak students: • Spiral Level 1 to be completed • 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 9 Gaseous exchange in Plants

Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of gases released by the plant during respiration
Assessment of qualifying knowledge	
Objective	Given the content (topic) the students will be able to understand that how does the process of gaseous exchange takes place in plant
Learning Outcomes	
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- *Circle the Sage*- The question will be asked by the teacher about the the students who knows the answer will stand at the various corners of the room. **(Communication, Collaboration)** Techniques to be used: Quiz 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 DPSG Spiral Weblinks: http://www.britannica.com/ www.extramarks.com http://onlineteachers.co.in/
Closure	Summarisation by students with the muddiest point by the teacher
Self Study, Home Work, Assignments	Spiral level 3 Question
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: • Spiral Level 3 questions to be done • Encouragement for referring other resources For weak students: • Spiral Level 1 to be completed • 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 10 Transportation (Heart)
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of function of heart.
Assessment of qualifying knowledge	
Objective	Given the content (topic) the students will be able to understand and explain the structure and function of heart.
Learning Outcomes	KNOWLEDGE- Students will know and understand Students will be able to • Understand the structure of heart SKILLS AND COMPETENCIES- Students would be able to • Appreciate the importance of different organs present in various systems and how effectively they **collaborate** with each other so that different systems can work effectively. • Design **Creative methods/techniques** to bring a positive change in the life style so as to prevent the various diseases related to various system.

	• Built **character** amongst themselves by discussing /**communicating** the importance of healthy life style in our daily life Attitudes and beliefs- *Students will be able to* Develop **citizenship** by visualizing and observing the given scenario(High B.P, Heart Failure, Kidney failure) in day to day lives and present it in form of a skit to **sensitize others** •
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Techniques to be used: Quiz 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 DPSG Spiral Weblinks: http://www.britannica.com/ www.extramarks.com http://onlineteachers.co.in/
Closure	Summarisation by students with the muddiest point by the teacher
Self Study, Home Work, Assignments	To find out the haemoglobin level in their own blood.
Assessments	Diagram of heart.
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: • Spiral Level 3 questions to be done

	• Encouragement for referring other resources For weak students: • Spiral Level 1 to be completed • 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 11 Arteries and veins
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of different organs in alimentary canal
Assessment of qualifying knowledge	Activity- Measurement of blood pressure with the help of sphygmomanometer The student will be divided into group of five and they will measure their blood pressure and establish a relationship between the blood pressure and body weight
Objective	Given the content (topic) the students will be able to compare arteires and veins
Learning Outcomes	KNOWLEDGE- Students will know and understand Students will be able to • Compare the structure,location and function of arteries and veins SKILLS AND COMPETENCIES- Students would be able to **collaborate and communicate** to each other about the different organs of alimentary canal on the basis of their structure, location and function Develop **citizenship** by visualizing and observing the given scenario(High B.P, Heart Failure, Kidney failure) in day to day lives and present it in form of a skit to **sensitize others**
Transaction Methodology (The teacher can use the	Transaction would proceed in the following manner- After the activity teacher will explain the main points of differences between artery and vein with the help of compare contrast matrix . **(Critical thinking, Communication, Collaboration)** Techniques to be used:

mentioned techniques, wherever applicable, and can use any other too.)	Quiz 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 DPSG Spiral Weblinks: http://www.britannica.com/ www.extramarks.com http://onlineteachers.co.in/
Closure	Summarisation by students with the muddiest point by the teacher
Self Study, Home Work, Assignments	Exemplar questions
Assessments	Record the blood pressure of their parents and compare it with their counter parts
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: • Spiral Level 3 questions to be done • Encouragement for referring other resources For weak students: • Spiral Level 1 to be completed • 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 12 Transportation in Plants
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of xylem and phloem
Assessment of qualifying knowledge	The class will be divided into group of 4 students each and they will be asked to draw venn diagram in their respective groups regarding the transport of food and water in plants (**collaboration) and communication)**
Objective	Given the content (topic) the students will be able to understand how does the transportation of water and food takes place in plants.
Learning Outcomes	KNOWLEDGE- Students will know and understand Students will be able to • Compare the transportation of water and food in plants
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- *Compare contrast matrix – **Critical thinking*** Differentiation- The students in a group of 10 will be presenting a skit on transportation system in plants and animals and how in each system different components are interdependent on each other . (**Character, Citizenship)** Techniques to be used: Quiz 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 DPSG Spiral Weblinks: http://www.britannica.com/ www.extramarks.com

	http://onlineteachers.co.in/
Closure	Summarisation by students with the muddiest point by the teacher
Self Study, Home Work, Assignments	Spiral level 2 Questions
Assessments	Peer assessment of the venn diagram
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: • Spiral Level 3 questions to be done • Encouragement for referring other resources For weak students: • Spiral Level 1 to be completed • 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 13 – Excretory system in human beings
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of excretion
Assessment of qualifying knowledge	Anticipatory set based on previous day knowledge
Objective	Given the content (topic) the students will be able to understand and explain the function of different organs present in excretory system
Learning Outcomes	KNOWLEDGE- Students will know and understand Students will be able to • Understand the function and structure of various organs present in excretory system

	SKILLS AND COMPETENCIES- Students would be able to **collaborate and communicate** to each other about the different organs present in excretory system
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- *Collaborative learning- Group work* Techniques to be used: Quiz 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 DPSG Spiral Weblinks: http://www.britannica.com/ www.extramarks.com http://onlineteachers.co.in/
Closure	Summarisation by students with the muddiest point by the teacher
Self Study, Home Work, Assignments	Diagram of excretory system
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: • Spiral Level 3 questions to be done • Encouragement for referring other resources

	For weak students: • Spiral Level 1 to be completed • 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	DAY14 Structure of Nephron
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of structure and functional unit of kidney
Assessment of qualifying knowledge	The class will be divided into group of 4 students each and they will be given one part each present in nephron and discuss about it in their respective group (**collaboration) and communicate** to each other on the basis of their structure, location and function
Objective	Given the content (topic) the students will be able to understand and explain the function of different parts present in nephron
Learning Outcomes	• Knowledge :Explain the process of blood filtration through the nephron.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- *Circle the Sage*- The question will be asked by the teacher about the different parts of nephron and the students who knows the answer will stand at the various corners of the room. **(Communication, Collaboration)** Techniques to be used: Quiz 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

	DPSG Spiral Weblinks: http://www.britannica.com/ www.extramarks.com http://onlineteachers.co.in/
Closure	Summarisation by students with the muddiest point by the teacher
Self Study, Home Work, Assignments	To find out the difference between artificial kidney and natural kidney.
Assessments	Peer assessment of the diagram drawn in the notebook of nephron on the basis of drawing skills and labelling
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: • Spiral Level 3 questions to be done • Encouragement for referring other resources For weak students: • Spiral Level 1 to be completed • 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 15 Excretion in plants
Class Transaction	40 min
Pre-requisite for the course	This topic requires Basic knowledge of excretory waste products present in plants

Assessment of qualifying knowledge	Anticipatory set based on previous day learning
Objective	Given the content (topic) the students will be able to list the various methods of excretion in plants.
Learning Outcomes	Explain the methods of excretion in plants and understand the differences between animal excretion and plant excretion.**(Critical thinking)**
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Questioning- *Multiple level question*- Teacher will prepare a list of question about the excretory waste products present in plants and will ask these questions during discussions. **(Critical thinking, Communication)** *Digital content* Techniques to be used: Quiz 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 DPSG Spiral Weblinks: http://www.britannica.com/ www.extramarks.com http://onlineteachers.co.in/
Closure	Summarisation by students with the muddiest point by the teacher
Self Study, Home Work, Assignments	Independent Practice-List the steps one need to take in order to prevent dental caries
Assessments	Peer assessment of the diagram drawn in the notebook of alimentary canal on the basis of drawing skills and labelling

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: • Spiral Level 3 questions to be done • Encouragement for referring other resources For weak students: • Spiral Level 1 to be completed • 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.