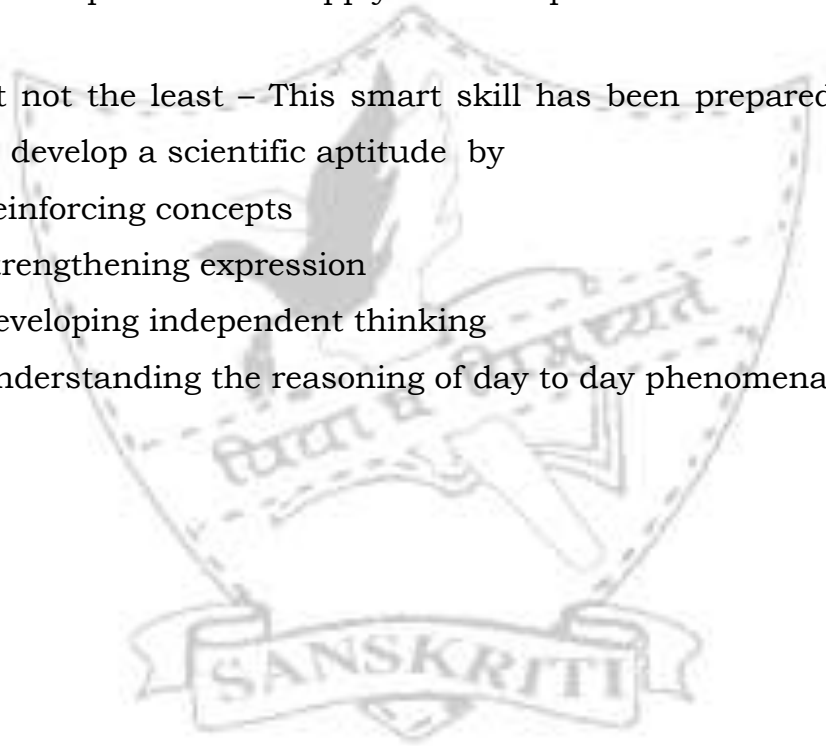


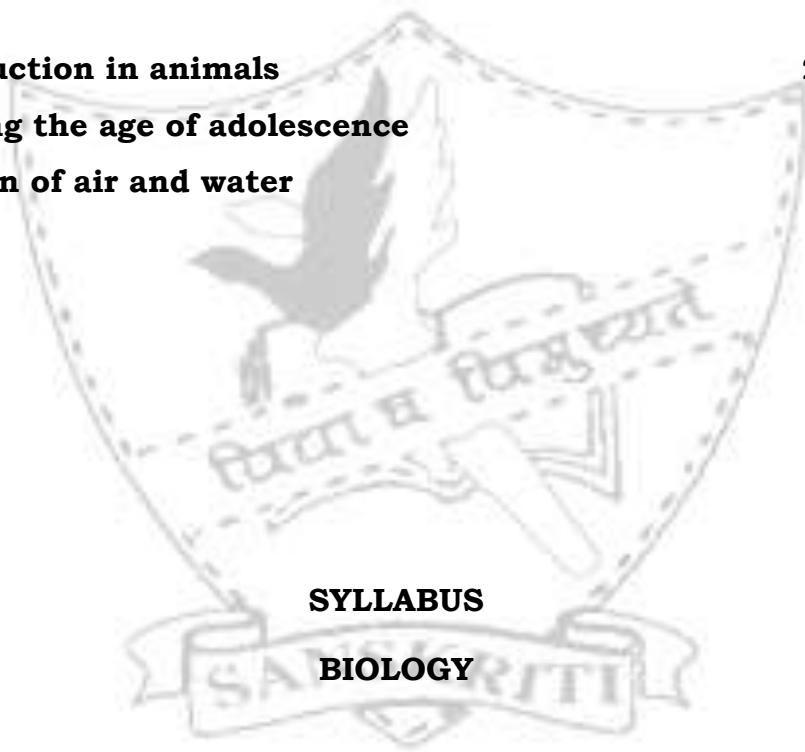
**KEY FEATURES OF SCIENCE SMART SKILLS**

- This edition is enriched with activities, crosswords, multiple choice questions, in-text questions etc. to check the child's grasp of the concept.
- The activities will help to focus child's attention on the concept to follow and explain and reinforce the scientific concepts.
- The **LET US DO** sections have activities like research, group work etc. which will help the child to apply the concepts of science.
- Last but not the least – This smart skill has been prepared to help the children develop a scientific aptitude by
  - Reinforcing concepts
  - Strengthening expression
  - Developing independent thinking
  - Understanding the reasoning of day to day phenomena



**CONTENTS**

<b>Chapters</b>	<b>Pages</b>
<b>Syllabus for the year</b>	<b>4</b>
• <b>Crop production and management</b>	<b>5</b>
• <b>Microorganisms : Friend and Foe</b>	<b>7</b>
• <b>Conservation of plants and animals</b>	<b>14</b>
• <b>Cell</b>	<b>19</b>
• <b>Reproduction in animals</b>	<b>25</b>
• <b>Reaching the age of adolescence</b>	<b>27</b>
• <b>Pollution of air and water</b>	<b>29</b>

**Ist Term Syllabus: April 16 to Aug 16****APRIL-MAY:****Chapter 2:** Microorganisms: Friend and Foe**Chapter 7:** Conservation of plants and animals. (Holidays Homework)**Chapter 1:** Crop production and management

**JULY-AUG**

**Chapter 1:** Crop production and management contd.

**Chapter 8:** Cell structure and function

**First Term Exams.**

**Second Term Syllabus: Sep 16 to Feb 17**

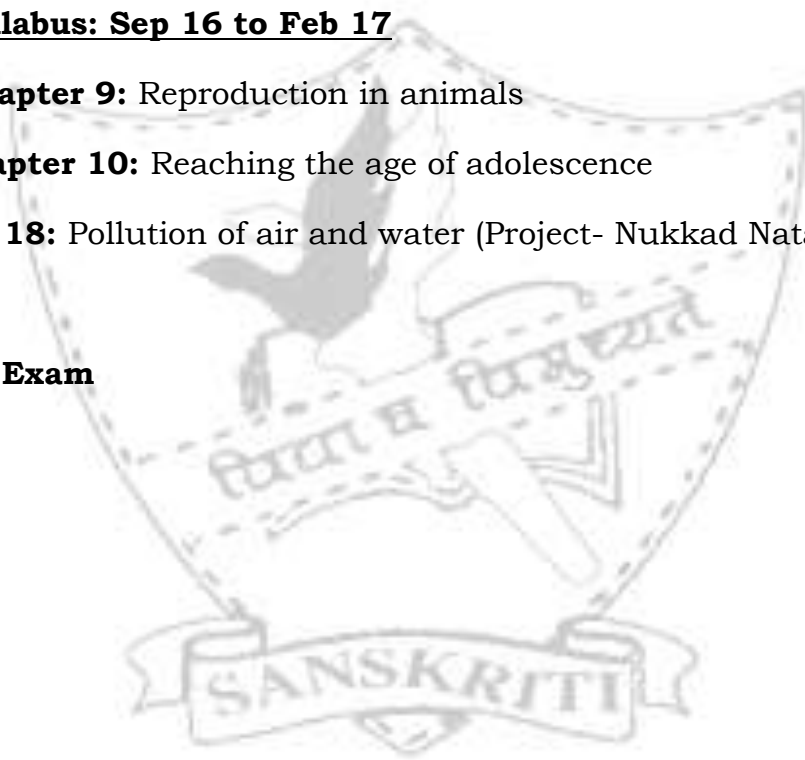
**SEP- DEC: Chapter 9:** Reproduction in animals

**DEC-JAN: Chapter 10:** Reaching the age of adolescence

**FEB: Chapter 18:** Pollution of air and water (Project- Nukkad Natak).

Revision

**Second Term Exam**



**Chapter - 1****CROP PRODUCTION AND MANAGEMENT**

Q1. Differentiate between:

- Manure and Fertilizer
- Kharif and Rabi crop
- Sprinkler and drip system of irrigation

Q2. Define the following terms:

- Irrigation
- Harvesting
- Animal Husbandry
- Crop

Q3. Write True or False against the following statements

- All crops require roughly the same amount of water.
- The same crop should be grown year after year on the same land.
- Examples of manure are urea and superphosphate.
- Dried neem leaves are used for storing food grains at home.

Q4. How does the use of fertilizers lead to eutrophication ?

Q5. What are weeds? How can we control them?

Q6. Give reasons

- Grains should be dried before storage.
- Use of organic manure and fertilizer is important.
- Ram Singh wants to practice crop rotation in his field. Suggest a Rabi crop and a Kharif crop which will replenish Nitrogen in his field. Which crop replenishes nitrogen and why?

Q7. Answer the following

- What are grain silos?
- What is a Hoe?
- Name any four methods of irrigation.
- What is threshing?

Q8. What precautions should a farmer adopt for the following-

- Before spraying weedicides.

- Before storing grains in godowns?

Q9. Match the following:-

	<b>A</b>		<b>B</b>
1	Combine	a	Weeding
2	Khurpi	b	Harvesting
3	Hoe	c	Harvesting and Threshing
4	Sickle	d	Irrigation
5	Sprinkle	e	Ploughing
6	Sowing	f	Seed-drill

Q10. What is pisciculture?

Q11. Give two modern techniques to irrigate fields in water deficient condition.

Q12. From the word puzzle given below find at least eight words which are farmer's friend

B	S	E	I	L	O	R	U	A	Z	Z
O	E	A	R	T	H	W	O	R	M	K
E	E	Z	L	G	O	H	Y	H	I	U
X	D	N	U	R	E	A	S	I	C	S
D	M	O	X	P	T	K	Y	Z	R	B
C	L	R	B	U	L	L	F	O	O	X
P	W	K	V	R	A	O	E	B	B	C
I	Q	P	G	B	G	C	W	I	E	M
M	A	N	U	R	E	V	J	U	S	P
Q	X	F	U	S	A	Z	T	M	U	V

VISIT TO AN AGRICULTURAL FARM

**Find Out More:**

**Organic Farming**

**The harmful fallout of Green Revolution in Punjab**

**Any Organic product that you have purchased: What does the label say?**

**Sustainable Farm Practices**

## CHAPTER 2

### MICROORGANISMS: Friend and Foe

Organisms too small to be seen with the naked eye are called as microorganisms or microbes. These are found everywhere soil, water and air. They can survive in ice cold or hot springs desert and marshy lands. Microbes are classified into five groups: **viruses, protozoans, bacteria, algae and fungi**. Microbes can be unicellular (bacteria, and fungi), filamentous (cells joined end to end; such as algae) or multicellular (fungi).

**Microorganisms and Human beings:** Microbes play an important role in our lives. Some of the microbes are beneficial while others are harmful and cause diseases.

#### **Microbes and their uses:**

- (i) Microbes such as *Lactobacillus* are used in the preparation of curd and cheese
- (ii) Microbes such as yeast (a unicellular fungus) are used in the bakery
- (iii) Yeast is also used in the production of alcohol, wine and vinegar (acetic acid) as yeast has the ability to convert sugar into alcohol/acid. This process is fermentation.
- (iv) Some bacteria have the ability to increase soil fertility by fixing nitrogen. They are called as biological nitrogen fixers. These bacteria can be free living or found in symbiotic association with the roots of the leguminous plants.
- (v) As decomposers they clean up the environment by breaking down dead plant and animals and return the minerals to the soil (farmers utilize this characteristic of microbes to obtain manure/compost). From human and animal wastes bacteria form biogas which is used for cooking purpose or making electricity.
- (vi) Fungi and bacteria are used in preparation of antibiotics (medicines that kill or stop the growth of the disease causing bacteria).

#### **Disease causing microorganisms:**

**PATHOGENS:** disease causing microorganisms are called pathogens.

**COMMUNICABLE DISEASES:** diseases that can spread from an infected person to a healthy person through air, water, food or physical contact.

**CARRIERS:** insects and animals which carry disease-causing microbes.

**VECTORS:** organisms which carry disease causing organisms & in whom a part of the life cycle of the pathogen takes place.

**SOME COMMON DISEASES CAUSED BY MICROORGANISMS**• **Diseases caused by Bacteria:**

DISEASE	ORGANISM AFFECTED	MODE OF TRANSMISSION	CARRIER(if any)
Tuberculosis	Humans	Air droplets	
Cholera	Humans	Water/food	housefly
Typhoid	Humans	Water	housefly
Anthrax	Humans & cattle's	Air/water/food/contact	
Citrus canker	Citrus fruits(plants)	Air	

• **Diseases caused by Virus:**

DISEASE	ORGANISM AFFECTED	MODE OF TRANSMISSION	CARRIER (if any)
Measles	Humans	Air	
Chicken pox	Humans	contact	
Polio	Humans	Water	housefly
Hepatitis B	Humans	Water	
Foot & mouth disease	Cattles	Inhalation of virus particle/direct contact	
Yellow vein mosaic of bhindi(Okra)	Bhindi(plants)	Insect(carrier)	

• **Disease caused by fungus:**

DISEASE	ORGANISM AFFECTED	MODE OF TRANSMISSION
Rust of wheat	Wheat(plants)	Air, seeds

• **Disease caused by Protozoa:**

DISEASE	ORGANISM AFFECTED	MODE OF TRANSMISSION
Malaria	Humans	Mosquito(vector)



**FOOD POISONING:**

Microorganisms grow on food & produce toxic substances which make the food poisonous & unfit for consumption.

**FOOD PRESERVATION:**

Food can be preserved by the following methods:

METHOD OF PRESERVATION	FOOD PRODUCT PRESERVED
By adding chemicals like sodium benzoate & sodium meta bi sulphite (chemical method)	Jams, squashes
By adding common salt	Meat, fish, amla, raw mangoes, tamarind
By adding sugar	Jams, jellies, squashes
By adding oil & vinegar	Pickles, vegetables, fruits. Meat
By pasteurization (it involves heating of milk to about 70°C for about 15-30 sec followed by sudden chilling)	Milk
By storage and packaging in air tight packets	Dry fruits, vegetables

**NITROGEN FIXATION:**

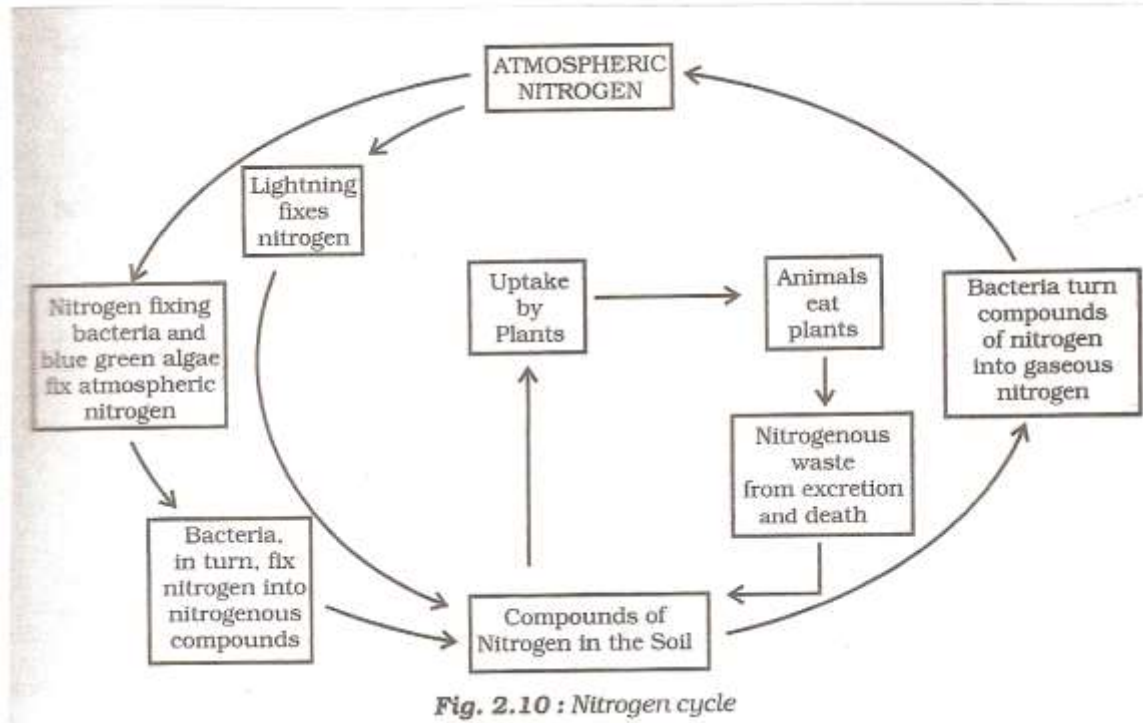
It is the process of converting free nitrogen in the atmosphere into compounds of nitrogen. It can be done in two ways:

Atmospheric fixation: by the action of lightening.

Biological fixation: by certain bacteria & blue green algae. Bacterium *Rhizobium* lives in the root nodules of leguminous plants & converts atmospheric nitrogen into compounds of nitrogen.

**NITROGEN CYCLE:**

Nitrogen is an essential constituent of proteins, chlorophyll, nucleic acids & vitamins. As a result of nitrogen cycle the percentage of nitrogen in the atmosphere remains more or less constant.



### MICROORGANISMS: FRIEND AND FOE

Q1. Give one word answer.

- Branch of Biology which deals with the study of microorganism.
- Medicines which kill or stop the growth of these disease causing microorganisms.
- Disease causing microbes
- The process of conversion of sugar into alcohol.

Q2. Give reasons:

- Antibiotic should be taken only on the advice of a doctor.
- Milk is boiled before it is stored.
- Breads and cakes are fluffy
- Fruit juices become sour.
- Oil is added in the pickles

Q3. Fill in the blanks:

- \_\_\_\_\_ only multiply in the body of living organism.
- \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ are four major groups of microorganisms.

- \_\_\_\_\_ and \_\_\_\_\_ disease are caused by virus in humans.
- The full form of AIDS is \_\_\_\_\_.
- \_\_\_\_\_ and \_\_\_\_\_ are examples of antibiotics.

Q4. Name the causative organisms, their mode of transmission, and carrier of the following diseases, in a tabular form.

Tuberculosis, Measles, Typhoid, Foot and mouth disease and Dengue

Q5. Define

- Nitrogen fixation
- Antibiotic
- Pathogens

Q6. How does nitrogen, which is a part of living organism, go back into the atmosphere?

Q7. What are the methods of preservation?

Q8. Why are the bacteria called natural scavengers?

**Find Out More:**

**Drug Resistant TB-A result of rampant misuse of antibiotics**

**Swine FLU, Bird Flu**

**Viruses causing Cancer**

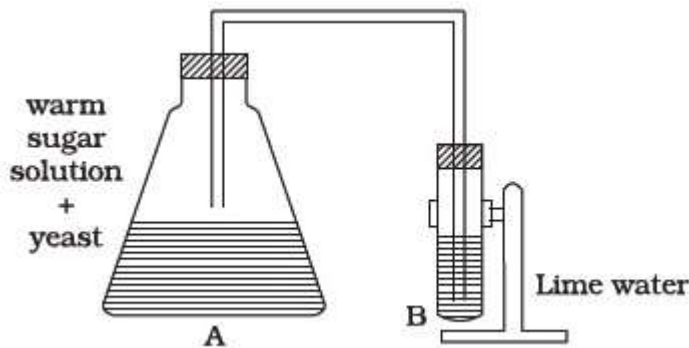
**Stomach Ulcer-a bacterial Infection**

VISIT THE BIOTECH LAB TO SEE BACTERIAL COLONIES GROWING ON AGAR PLATES

ROOT NODULES OF LEGUMINOUS PLANTS

**Activity**

Q1. Observe the set up given in the Fig below and answer the questions



a) What happens to sugar solution in A?

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b) Which gas is released in A?

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c) What changes will you observe in B when the gas released is passed through it?

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Q.2 Give one difference between the following pairs taking example under each category:

a. Communicable and non-communicable diseases

b. Microbe and Pathogen

c. Carrier and Vector

Q.3 Explain briefly the following:

a. Food Poisoning

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b. Nitrogen Fixation

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## Chapter 7

### Conservation of Plants and Animals

The existence of a diverse variety of plants, animals, and other living forms is known as **biodiversity** (biological diversity). Existence of plants and animals is **important** due to various reasons:

- roots of the plants help in binding the soil and hence **prevent soil erosion**
- forests are home to numerous plants and animal species,
- forests maintain a balance between the oxygen and carbon dioxide levels in the atmosphere
- forests also play role in the climate , wind and rainfall of the both locally and globally
- Different plants and animals form vital links in food chains and food webs.

Thus for the survival of the mankind and to maintain the natural ecological balance it is necessary to conserve biodiversity.

Following are the **causes of the loss of biodiversity**:

- Increase in human population and use of land for agriculture and urban development leading to large scale destruction of forests resulting in **deforestation**. Consequences of deforestation are many:
  - Deforestation results in the change in soil property gradually leading to **desertification**.
  - Falling of trees may also result in the increase in the temperature of the earth (**global warming**)
  - It also leads a disturbance in the water cycle and less rainfall resulting in drought
  - Loss of trees decrease the water holding capacity of the soil. The movement of water from the soil surface into the ground is reduced leading to floods.
- ii Killing of animals for their meat, skin and other body parts
  - iii Pollution of air, water and land adversely affects many plants and animals.
  - iv Natural disasters like, earthquakes, cyclones etc.

Conserving the biodiversity on earth is the duty of every human being to promote conservation, government and non-government bodies at the international, national and local levels are constantly organizing awareness

programs, and issuing rules and regulations to protect the existing forests and wild life. To conserve biodiversity it is necessary to follow certain conservation strategies. These strategies involve establishing protected areas for plants and animals (Sanctuary, National park and biosphere reserve), restoring ecosystems, and managing already existing plant and animal species.

### **Terms associated with biodiversity:**

**Species:** a group or a class of animals and plants having certain common and permanent characteristics that clearly distinguish it from other groups.

**Flora and fauna:** numerous species of plants living in their natural surroundings (habitat) are termed as flora, and the animal species constitute the fauna. Together the flora and fauna form the biodiversity of the place.

**Extinct species:** species of plants and animals that are no longer existing.

**Endangered species:** These are at a high risk of getting extinct in their habitat in the near future.

**Endemic species:** species of plants and animals which are found exclusively in a particular area. A particular type of animal or plant may be endemic to a zone, a state or a country. The following factors affect the natural habitat of endemic species and endanger their existence:

- Destruction of their habitat
- Increasing population
- Introduction of new species

An **ecosystem** is made of all the plants, animals and microorganisms in an area along with non-living components such as climate, soil, rivers etc.

To protect our flora and fauna and their habitats, **protected areas** called sanctuaries, national parks and biosphere reserves have been earmarked. Plantation, cultivation, grazing, felling trees, hunting and poaching are prohibited here. These protected areas include:

**Wildlife sanctuary:** provides protection and suitable living conditions to wild animals. They are a tract of land with or without lake where wild animals or fauna can take shelter without being hunted. Some of the threatened wild animals like black buck, white eyed buck, elephant, rhinoceros, etc., are protected and preserved in our wild life sanctuaries.

**National parks:** They are reserves of land, usually owned by governments, which are protected from most human developments. National parks are large and diverse enough to protect whole sets of ecosystem. Tiger is one of the many species which are slowly disappearing from our forests. In a food chain tigers are the top carnivores.

**Biosphere reserves:** they are areas meant for conservation of biodiversity. **Biodiversity** is the variety of plants, animals and microorganisms generally found in an area. The biosphere reserves help to maintain the biodiversity and culture of that area. The area covered by a biosphere reserve is the largest and it can have a number of national parks and sanctuaries within its area.

**Top carnivores** are those which are situated at the top of a food chain. They eat many animals but nobody eats them. The removal of a top carnivore can have a serious impact on the ecosystem. Thus, the protection of carnivores is very important. For this the **Project Tiger** was launched by the government in 1973 with the objective to ensure the survival and maintenance of the tiger population in the country.

**Red data book** is the source book which keeps a record of all the endangered animals and plants. It is compiled and maintained by the International Union of Conservation of Nature and Natural Resources (IUCN).

**Migration** is the phenomenon of movement of a species from its own habitat to some other habitat for a particular time period every year for a specific purpose like breeding. Migratory birds fly for laying eggs as the weather in their natural habitat becomes very cold and inhospitable.

We have already caused tremendous damage to our forests. If we have to retain our green wealth for future generations, plantation of more trees is the only option. **Reforestation** is restocking of the destroyed forests by planting more



trees. The planted trees should be of the same species which were found in that forest. The **Forest (Conservation) Act** in our country is aimed at preservation and conservation of natural forests and meeting the basic needs of the people living in or near the forests.

**Find Out More:**

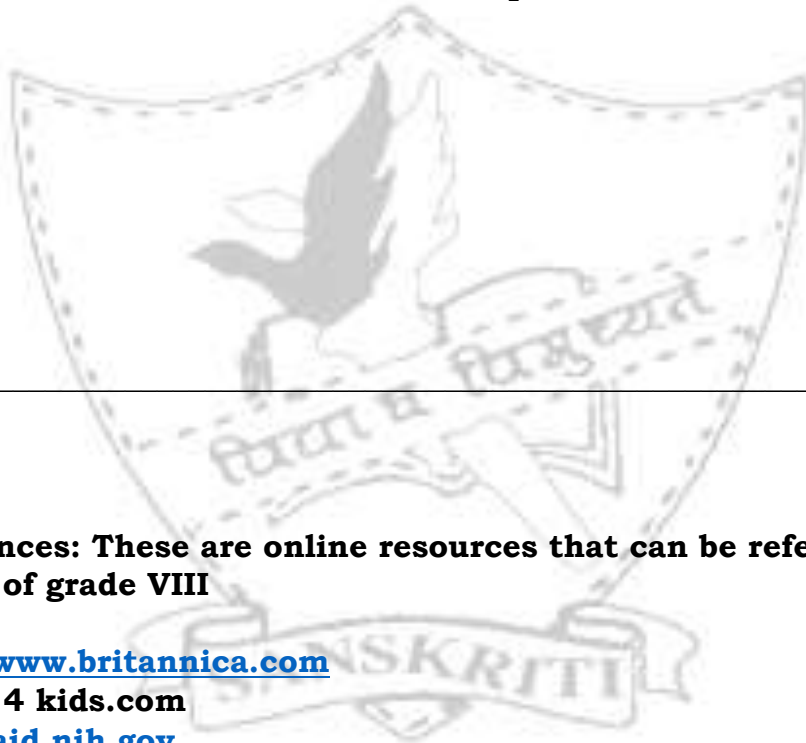
**Biodiversity Hot Spots**

**The Himalayan Glaciers**

**Any Case study to minimize Man Animal Conflict**

**Chipko Movement**

**Traditional systems of conservation-Sacred plants and animals**



**Useful References:** These are online resources that can be referred to for all the topics of grade VIII

- <http://www.britannica.com>
- [Biology 4 kids.com](http://www.biology4kids.com)
- [www.niaid.nih.gov](http://www.niaid.nih.gov)
- [www.microbiologyonline.org.uk](http://www.microbiologyonline.org.uk)
- [www.bbc.co.uk/bitesize/ks3/science](http://www.bbc.co.uk/bitesize/ks3/science)
- [Cbse-notes.blogspot.in](http://cbse-notes.blogspot.in)
- [www.slideshare.net](http://www.slideshare.net)

**CONSERVATION OF PLANTS AND ANIMALS  
(HOLIDAYS HOMEWORK)**

**INSTRUCTIONS:**

The class will be divided into 5 **groups** of six students each by the subject teacher. The members of each group are instructed to read **Conservation of Plants and Animals, Chapter 7 from SCIENCE NCERT textbook and the handout given in the smart skills**. They will do research on the topic assigned to them by the subject teacher. They are also required to collect material like cuttings from newspaper, magazines, journals, photographs, illustrations or any relevant material from different sources to make a collage.

**The Topic will be assigned to the group by the subject teacher**

The students will be given one period to assemble the collage in the class when the school re-opens in July. They should be ready with the material by July 8, 2017.

**Rubric For assessment:**

Neatness	Relevance to Topic	Research and Information	Creativity	Adherence to time limit	Total
3	5	5	5	2	20



**Chapter - 8****CELL**

1. Fill in the blanks:

- a. \_\_\_\_\_ is called the living substance of the cell.
- b. The three main parts of a generalized cell are \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.
- c. An example of human body cell that can change its shape is \_\_\_\_\_.
- d. \_\_\_\_\_ contain pigments and occur in plant cells only.
- e. Chromosomes carry \_\_\_\_\_ that help in the transfer of characters from parents to the offspring.
- f. \_\_\_\_\_ is the unit of inheritance in living organisms.
- g. \_\_\_\_\_ is a single celled organism.
- h. \_\_\_\_\_ coined the term cell.
- i. Nucleus is separated from the cytoplasm by a membrane called \_\_\_\_\_.
- j. \_\_\_\_\_ & \_\_\_\_\_ are prokaryotic.

2. Indicate whether the following statements are True (T) or False (F). If false, write the correct statement also.

- a. Plant cells have smaller vacuoles than animal cells.
- b. Organ is the basic structural unit of life.
- c. Organisms made of more than one cell are called multicellular organisms.
- d. Pseudopodia are found in *Paramecium*.
- e. The entire living substance of the cell is called cytoplasm.
- f. Tissues form organ systems.

3. a. Name the largest and the smallest cell known. Also mention their respective sizes.

b. Give examples to prove that the shape of a cell is related to its function?

c. What role do the following perform in a cell?

1. Cell wall
2. Nucleus
3. Plastids
4. Chromosomes
5. Vacuole

4 Differentiate between the following pairs:

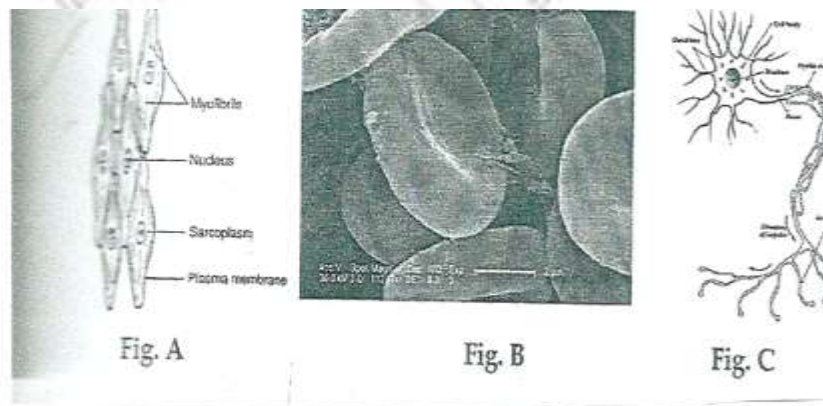
- a. Cell and Tissue
- b. Prokaryotic and Eukaryotic cell

5. Draw neat and well-labelled diagrams of the following

- a. Plant cell.
- b. Animal cell.

6. What are genes and where are they found?

7. Look at the diagrams of the cells given below and answer the following questions:



a. What is the shape of cells in fig. A?

- b. Figure C corresponds to cell responsible for receiving and transferring messages in the human body. Name the cell.
- c. Name the cells shown in figure B?
8. Classify the following terms as cell, tissue, and organ and write it in the table below

RBC, heart, hand, blood, nerve cell, WBC, blood vessel, muscle

Cell	Tissue	Organ
.....	.....	.....
.....	.....	.....
.....	.....	.....

9. Fill in the blanks with the words given below:

Nucleus, chromosomes, cell wall, cell membrane, protoplasm, cytoplasm, ribosome, [cell organelles](#)

The outermost layer of plant cells is the  (a)  beneath which is the  (b) . The term  (c)  refers to the jelly-like substance containing all the  (d) . The  (e)  contains thread-like structures called  (f) .



## Word Search--Cell

Z A U V V Y N Z T E W E L A D O S I  
 V Z K B G U F S M H G P U A S K G D  
 V R J R C O I O B F R O E H M N Q R  
 W C E L S G S D H S S C B F U I O G  
 I N E S O O T Z N D U S G F I V N H  
 E U I L M B O D C E Y O R S L L N A  
 S L O O B C A R V M W R O U E N S R  
 M I R P O V L C G H U C W R M X L P  
 B H N U M E G O T A C I T I N L L Q  
 C Y G O L O C E N E N M H V E A J K  
 N I E T O R P Q G I R I T C N U A Q  
 N O I T U L O V E K N I S T V H V Z  
 Z E N E G I J Q L A Q G A M A W K N

ANIMAL  
 CELL  
 ECOLOGY  
 FOSSIL  
 GROWTH  
 NUCLEUS  
 PROTEIN

BACTERIA  
 CHROMOSOME  
 ENERGY  
 FUNGI  
 LIFE  
 ORGANISM  
 VIRUS

BIOLOGIST  
 CLONING  
 EVOLUTION  
 GENE  
 MICROSCOPE  
 PLANT

**Lab Activity**

**Observe the given slides. On the basis of the observations made try to identify the cells/ organism shown. Also draw a neat diagram of the cell/organism identified.**

	NAME OF CELL/ORGANISM	OBSERVATIONS	DIAGRAM
<b>SLIDE 1</b>			
<b>SLIDE 2</b>			

<b>SLIDE 3</b>			
<b>SLIDE 4</b>			
<b>SLIDE 5</b>			



## Chapter - 9

## REPRODUCTION IN ANIMALS

Q.1 Match the items in Column A with items in Column B.

- |                          |                                                |
|--------------------------|------------------------------------------------|
| • Zygote                 | Egg cell                                       |
| • <i>Hydra</i>           | Birds                                          |
| • Ovum                   | Stage when organs can be identified externally |
| • External fertilization | Binary fission                                 |
| • Foetus                 | Buds                                           |
| • <i>Amoeba</i>          | Fusion of male and female gametes              |
|                          | Fish                                           |

Q.2 Fill up the blanks:

- The type of reproduction that involves fusion of male and female gametes is called as \_\_\_\_\_.
- The testes produce male gametes called as \_\_\_\_\_.
- The ovaries produce female gametes called as \_\_\_\_\_.
- Fusion of male and female gametes is called as \_\_\_\_\_.
- Sperm and ovum fuse to form \_\_\_\_\_.
- Egg laying animals are called as \_\_\_\_\_ while those which give birth to young ones are called as \_\_\_\_\_.
- Transformation of larva to an adult is called as \_\_\_\_\_.
- The type of reproduction in which only one parent is involved is \_\_\_\_\_.
- *Hydra* reproduces by \_\_\_\_\_ while *Amoeba* reproduces by \_\_\_\_\_.
- \_\_\_\_\_ of sperms are produced by the testes whereas a \_\_\_\_\_ ovum is produced at a time by the ovary.
- The first animal to be cloned was a \_\_\_\_\_.
- Each sperm is a \_\_\_\_\_ cell.

Q.3 Differentiate between

- Sperm and Ovum (Two points)
- Internal and external fertilization.
- Sexual and asexual reproduction.
- Testis and ovary.

Q.4 Name the parts of the sperm.

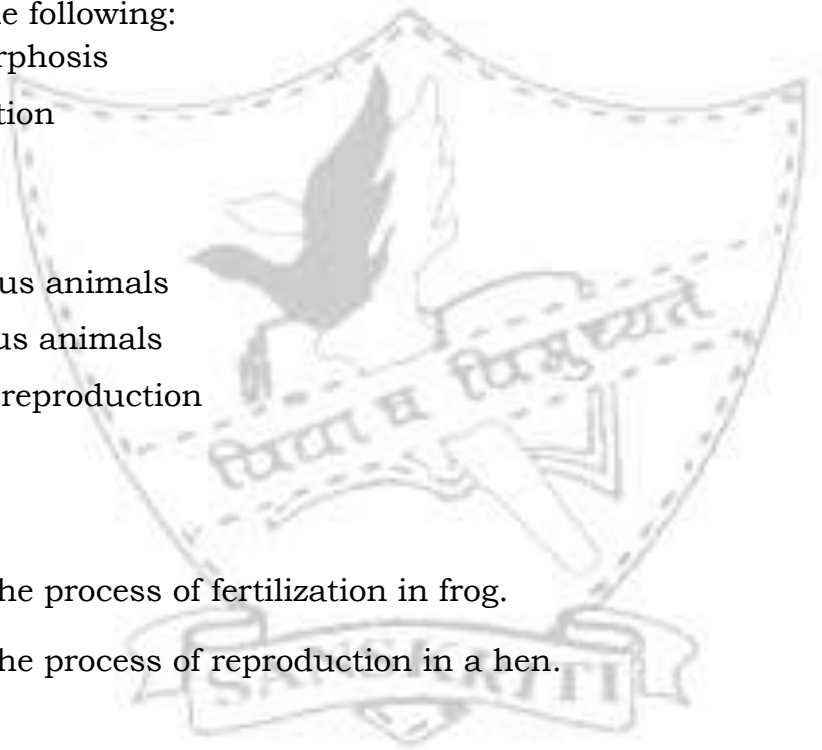
Q.5 Give the function of jelly found around the eggs of the frog.

Q.6 Define the following:

- Metamorphosis
- Fertilization
- Embryo
- Fetus
- Viviparous animals
- Oviparous animals
- Asexual reproduction
- Zygote

Q.7 Describe the process of fertilization in frog.

Q.8 Describe the process of reproduction in a hen.



## Chapter - 10

## REACHING THE AGE OF ADOLESCENCE

Q.1 Fill in the blanks:

- \_\_\_\_\_ is the period in the life of an individual when the body undergoes changes resulting in reproductive maturity.
- Endocrine glands are also known as \_\_\_\_\_ glands.
- \_\_\_\_\_ is the hormone which is responsible for the development of breasts in females.
- Out of \_\_\_\_\_ pairs of chromosomes in the nucleus of each human cell, two are called \_\_\_\_\_ chromosomes and are named \_\_\_\_\_ and \_\_\_\_\_.
- Hormones secreted by \_\_\_\_\_ gland stimulate testes and ovaries to produce \_\_\_\_\_ and \_\_\_\_\_ hormones respectively.
- \_\_\_\_\_ gland secretes growth hormones.
- \_\_\_\_\_ is the male hormone and \_\_\_\_\_ the female hormone.
- Hormones are secretion of \_\_\_\_\_ glands.

Q.2 Match the following:

COLUMN A	COLUMN B
Testes	Thyroxine
Adrenal	Growth Hormone
Thyroid	Testosterone
Ovaries	Insulin
Pancreas	Adrenalin
Pituitary	Oestrogen

Q.3 Name the virus responsible for AIDS.

Q.4 Name a food item which is a balanced meal in itself.

Q.5 Name the disease caused due to improper functioning of

a) Thyroid

b) pancreas

Q.6 What type of foodstuffs should an adolescent take for blood formation?

Q.7 Give reasons to justify the following statements:

- The voice of adolescent boys becomes hoarse.
- Acne and pimples are more common among adolescents.
- Wall of uterus becomes thick during the first phase of menstrual cycle.
- Chips and tinned food can never replace regular meals.
- We should say “NO” to drugs.
- Adolescents should be careful of what they eat.
- Endocrine glands are called ductless glands.

Q.8 Differentiate between menopause and menarche.

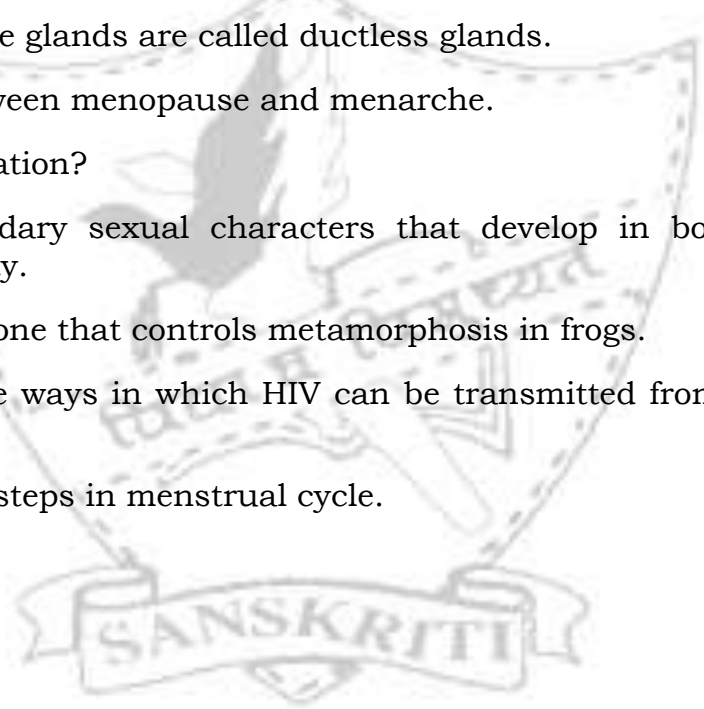
Q.9 What is menstruation?

Q.10 List the secondary sexual characters that develop in boys and girls respectively at puberty.

Q.11 Name the hormone that controls metamorphosis in frogs.

Q.12 Enlist any three ways in which HIV can be transmitted from an infected to a healthy person.

Q.13 Enumerate the steps in menstrual cycle.



**Chapter - 18****POLLUTION OF AIR AND WATER****PROJECT ACTIVITY****PROJECT TOPICS:**

- Air pollution.
- Taj Mahal-a case study
- Green house effect
- Global warming
- Water pollution

**INSTRUCTIONS**

- Students will work in groups to organize a nukkad-natak to create awareness among people on various aspects of pollution.
- Each group shall be assigned topics from the chapter by their subject teacher.
- Each group shall be given 8-10 min to present the nukkad-natak. The date and time of presentation shall be told to the students well in advance.
- The total marks for the project are 20.

**EVALUATION CRITERIA**

The rubric for evaluation is as under:

Research & Information	Creativity	Effectiveness	Team work	Adhering to the time limit
4	4	4	4	4