Oxford INSPIRE

Science

PREPARATORY LEVEL

Class 3



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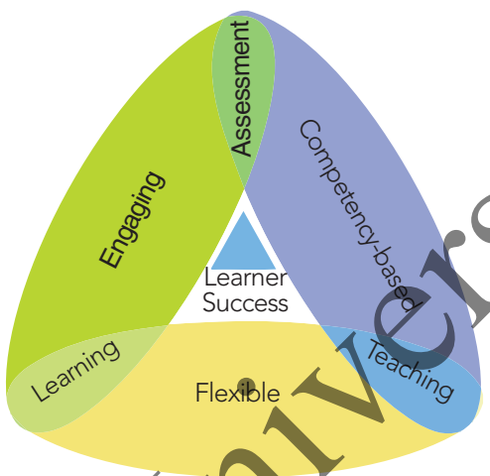
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Oxford INSPIRE

Welcome to Oxford Inspire, an NEP-aligned, blended, competency-based programme with learner success at its heart

Key Pillars

High learner engagement using game-based concepts like rewards, competition, and visible achievement through leaderboards



Progress is determined by demonstration of mastery or competence (knowledge, abilities, and skills)

Focus on outcomes and real-world application, and meaningful data on learner progress for all stakeholders

Easily move back and forth between the textbook and MyInspire
Continue learning at home with anytime, anywhere access

NEP Focus

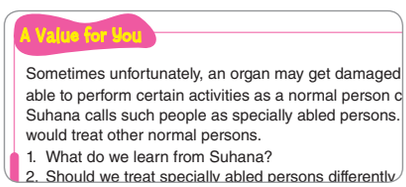
LITERACY SKILLS
- Information Literacy
- Media Literacy
- Technology Literacy

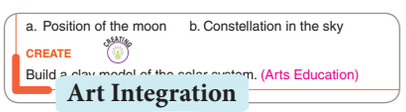
LEARNING SKILLS
- Critical Thinking
- Collaboration
- Communication
- Creativity and Innovation

LIFE SKILLS
- Flexibility and Adaptability
- Leadership and Responsibility
- Initiative and Self-Direction
- Social and Cross-Cultural Interaction

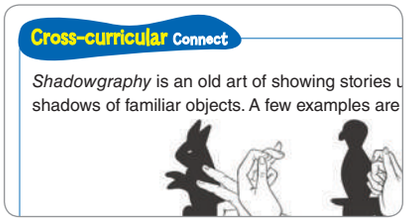
21st CENTURY SKILLS (LEARNING) 21st CENTURY SKILLS (LITERACY) 21st CENTURY SKILLS (LIFE SKILLS)

KNOWLEDGE OF INDIA VALUES





Art Integration



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Unique Learn Journey

I am the Bengal Tiger, and I will be your Learn Buddy in this journey.



MyInspire

Tune In Go through introductory or recap content and attempt practice questions



1



Go through concept explanation

2

3

MyInspire

Go through learning and practice content in the form of concept animations and interactivities

MyInspire

Concept animations

Interactivities

Chapter-end quizzes

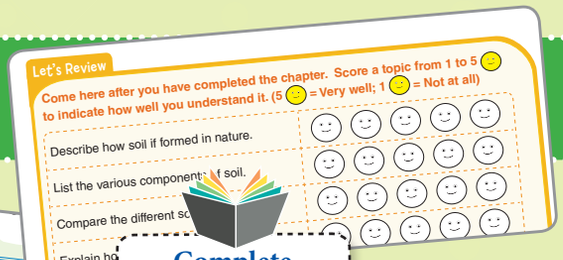
REMEMBERING UNDERSTANDING APPLYING EVALUATING ANALYSING CREATING

Bloom's Revised Taxonomy

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MyInspire

Climb the class leaderboard and unlock exciting achievements!



Complete Let's Review



MyInspire

Attempt objective-type Exercise questions

Solve Exercise questions

6

View Chapter Summary and Keywords

4

5



Solve end-of-chapter Revision Exercises, including Picture Study, and Cross-curricular Connect

8

7

MyInspire

Attempt end-of-chapter quizzes

9



10

MyInspire

Competencies Achieved

Proceed to learn new concepts

11

MyInspire

Competencies not Achieved

Review learning content and re-attempt quizzes

MyInspire

View detailed reports

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1 Eating Habits of Animals

Tune In Go to MyInspire and view . Also, answer the following:

1. Why must animals eat?
2. What will happen if an animal does not get enough to eat for a long time? Explain.

IN THIS CHAPTER

- Eating Habits
- Teeth of Animals
- Food Chain

The picture given below shows different animals with their food.



Spell out the name of the animals shown here and the food they eat. Do they all eat the same type of food?

EATING HABITS

All living things need food to live. But actually, only green plants can make food. All the other living beings depend on green plants for food.

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Different animals have different food habits. Some animals eat only plants. Some eat only flesh of other animals. Some eat both plants and flesh of other animals.

According to food habits, animals form four categories: herbivore, carnivore, omnivore, and scavenger.

Herbivore

An animal that eats only plants is called **herbivore**. Herbivorous animals may eat the whole plant or various parts of plants.

Horse, cow, sheep, goat, deer, buffalo, zebra, hippopotamus, and donkey are some examples of herbivores.



Deer: a herbivore



Lion: a carnivore

Carnivore

An animal that eats flesh of other animals only is called **carnivore**. Carnivorous animals hunt other animals for food.

Animals such as tiger, lion, cheetah, and wolf that hunt other animals for food, are called **predators**. Hunted animals such as deer and buffalo are called **prey**.

Omnivore

An animal that eats both plants and flesh of animals is called **omnivore**.

Many animals, birds, and insects are omnivores.



Bear: an omnivore

Most bears are omnivorous. Sloth bear, found in the Indian sub-continent[1], feeds on fruits, ants, honey, and termites.

Animals like crows, rats, and cockroaches are omnivores. We humans are omnivores too. We can eat both plants and meat of certain animals.

[1]Indian sub-continent: India together with Bangladesh, Bhutan, Maldives, Nepal, Pakistan, and Sri Lanka.

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Scavengers

Animals like hyena, jackal, coyote; and birds like vulture and crow, eat dead and decaying animals. They are called **scavengers**. Normally they do not hunt themselves. They eat the dead remains[1] of hunted animals.

Scavengers are very useful for our environment. They eat away rotting dead animals which can spread diseases.



Vulture: a scavenger

Go to MyInspire and view .

Exercise 1

Go to MyInspire for questions A and B.

C. Short Answer Questions

REMEMBERING UNDERSTANDING

1. Name any two carnivores.
2. What type of an animal is a bear – herbivore, carnivore, or omnivore?
3. What type of a bird is a crow – herbivore, carnivore, or omnivore?

D. Long Answer Questions

REMEMBERING UNDERSTANDING

1. Describe the difference between herbivores, carnivores, and omnivores.
2. What is the importance of scavengers in our environment?

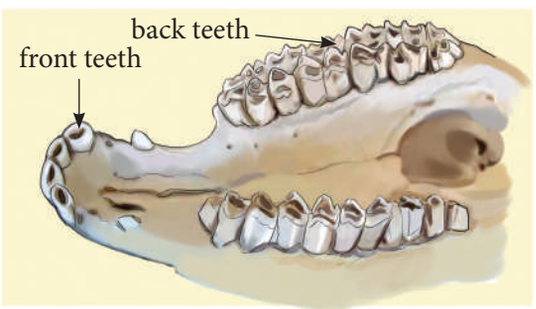
TEETH OF ANIMALS

If you stand before a mirror and open your mouth wide, you can see the rows of white teeth inside. Teeth help us to tear, cut, and chew food. Animals too have teeth.

Animals do not eat the same type of food. So, they do not have same type of teeth. The teeth of herbivores, carnivores, and omnivores differ from each other.

Teeth of Herbivores

Herbivores have two sets of teeth—**front teeth** and **back teeth**. The flat front teeth are used in biting and tearing grass and leaves. The strong, broad, and flat back teeth help in crushing, chewing, and grinding tough plant parts into soft paste.



Teeth of a herbivore

[1]dead remains: a dead body and its parts

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Special Feeding Habits of Some Herbivores



A squirrel gnawing at a nut

Animals like squirrel and rabbit eat nuts and hard grains. They have very sharp front cutting teeth. They keep on biting on their food. This is called **gnawing**.

Cows and buffaloes first swallow their food and store it in their stomach. Later, they bring the food back into mouth and chew it for hours. This is called **chewing the cud**[1].



A cow chewing the cud

Get It Right

All herbivores do not chew the cud. For example, donkeys, zebras, and horses do not chew the cud.

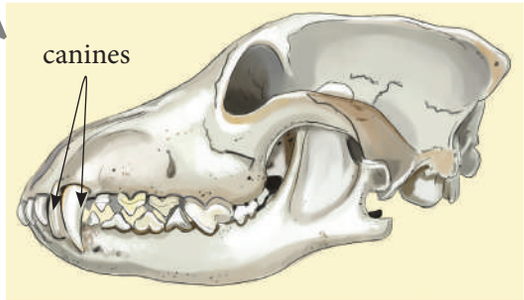
Fact Store

Chewing the cud is also known as **rumination** and the cud chewing animals are called **ruminants**.

Teeth of Carnivores

Teeth of carnivores support their flesh-eating habits.

Carnivores have long, sharp, and pointed front teeth called **canines**. Canines help tear and cut flesh. The back teeth are strong and zigzaged which help in grinding the flesh. Carnivores also have very strong jaws.



Teeth of a carnivore

Special Feeding Habits of Some Carnivores

Frogs and chameleons have long, sticky, extendable tongue. They throw their tongue very quickly to catch insects. The prey gets stuck to the tongue. Then they draw their tongue back into mouth and eat their catch.



A frog catching an insect

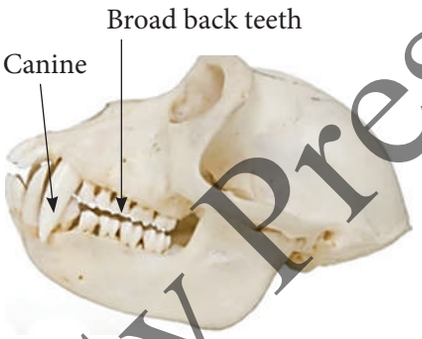
[1]cud: incompletely chewed swallowed food

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A snake swallowing its prey whole

Snakes do not have cutting and chewing teeth. They do have teeth called **fangs**. Fangs are used to inject poison to kill a prey. Snakes swallow their prey whole.



Teeth of an omnivore

Teeth of Omnivores

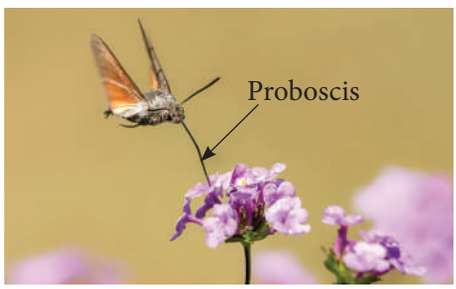
Omnivores have both herbivorous and carnivorous types of teeth. That is why they can eat plants and also flesh of animals.

Toothless Animals

Some animals do not have any tooth. Toothless animals have special ways of eating food. Insects like butterflies, moths, and mosquitoes do not have teeth. They have long, sucking tubes called **proboscis**. They use these tubes to suck their food. Mosquitoes use proboscis to draw blood from animal bodies.

Turtles are toothless animals. They have strong **beaks** with which they break and chew their food before swallowing. Certain whales have special feeding plates, known as **baleen**, instead of teeth.

Worms have powerful mouths. They can break down food in their throats.



A moth sucking nectar

Get It Right

1. Cows and buffaloes do not have front upper teeth. They have thick hard pad of skin in place of front upper teeth.
2. Animals such as elephants, walruses, and water deer have long, white, and hard teeth coming out of their mouth. These teeth are called **tusks**. Tusks are not used in eating food.







Go to MyInspire and view .

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Exercise II

Go to MyInspire for questions A and B.

C. Short Answer Questions

REMEMBERING

1. Name a toothless animal.
2. Name an animal that has a beak, instead of teeth.
3. Name an animal that uses proboscis to eat food.

D. Long Answer Questions

REMEMBERING UNDERSTANDING

1. What is the difference between the teeth of herbivores and those of carnivores?
2. How do toothless animals eat their food? Explain with some examples.

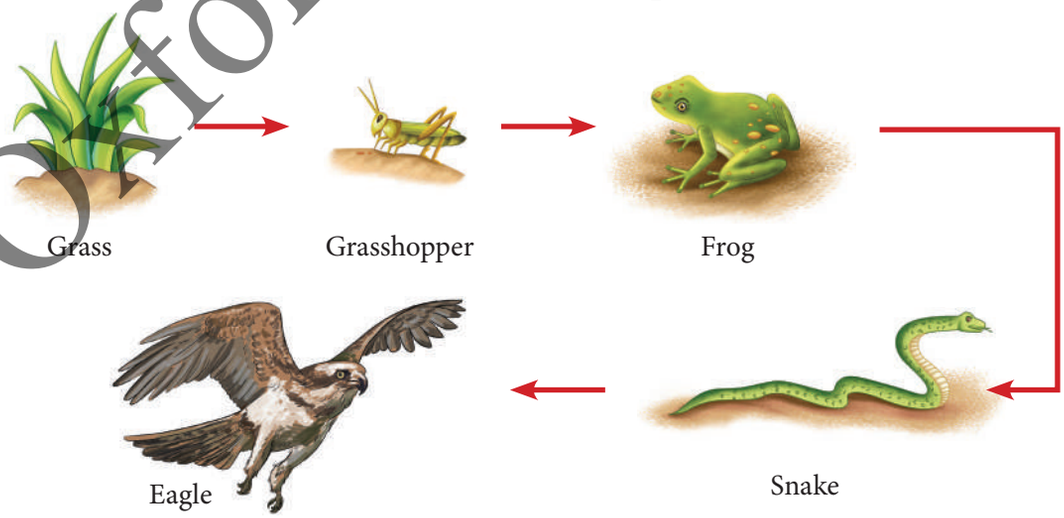
FOOD CHAIN

We know that green plants can make their own food. Therefore, green plants are called **producers**.

Animals depend on plants directly or indirectly for their food. Therefore, animals are called **consumers**.

Green plants make food using air, water, and sunlight. Herbivores eat plants. Carnivores eat herbivores. Omnivores eat both plants and animals. Thus, a chain is formed between plants and animals for food. **Food chain** is a series of living beings in which each one is eaten by the next. Several food chains exist in the nature. A food chain always begins with a green plant.

Take a look at the picture below. It shows one simple food chain.



An example of food chain

(c) Oxford University Press

In this food chain, the grasshopper eats grass. The frog eats the grasshopper. The snake eats the frog. Finally, the snake is eaten by the eagle. We can write this food chain in words as: **grass ▶[1] grasshopper ▶ frog ▶ snake ▶ eagle**.

Go to MyInspire and view .

Exercise III

Go to MyInspire for questions A and B.

C. Short Answer Questions

REMEMBERING UNDERSTANDING

1. What is a producer in a food chain?
2. What is a consumer in a food chain?
3. In a food chain, why is frog a consumer not a producer?

D. Long Answer Questions

REMEMBERING UNDERSTANDING

1. Write a food chain in words.
2. A food chain always begins with a green plant. Why?

Biography



Jane Morris Goodall (born: 3rd April 1934), is an ethologist. (*Ethologists study behaviour of animals*). She studied the behaviour of chimpanzees in Tanzania.

Jane Goodall believed that to understand animal behaviour they should be treated as individuals. Through her writings, readers around the world came to know and love the chimpanzees she studied as individuals. She had named the three chimpanzees *Flo*, *Fifi*, and *Frodo*.

Keywords

Herbivore	A plant-eating animal
Carnivore	A flesh-eating animal
Predator	An animal that hunts and kills other animals for food
Prey	An animal that is hunted and killed for food by another animal
Omnivore	An animal that eats both plants and flesh of other animals
Scavenger	An animal that eats dead remains of other animals
Producer	A living being that can make its own food
Consumer	A living being that depends on other living beings for food
Food chain	A series of living beings in which each one is eaten by the next

[1] a ▶ b: a is eaten by b

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Summary

- According to food habits, animals form four categories: herbivore, carnivore, omnivore, and scavenger.
- Herbivores eat only plants, carnivores eat only flesh of other animals, and omnivores eat both plants and animals.
- Scavengers eat dead remains of animals.
- Herbivores have flat front teeth and strong, broad back teeth.
- Carnivores have long, sharp, pointed front teeth (canines) and strong back teeth.
- Many animals have special eating habits.
- Toothless animals have special feeding features to eat their food.
- A food chain shows how a living being eats and is eaten by the other.

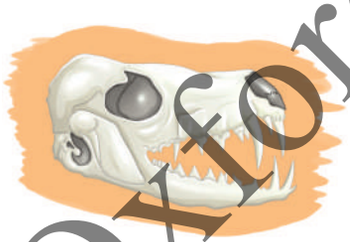
Revision Exercises

Go to MyInspire for questions A and B.

C. Picture Study

UNDERSTANDING

Look at the diagrams of teeth of animals given below. On the basis of teeth, determine the category which each of the animal belongs to (herbivorous/ carnivorous/ omnivorous). Specify the reason in each case.

1. 

2. 

3. 

D. Short Answer Questions

REMEMBERING UNDERSTANDING

1. What is meant by *chewing the cud*?
2. How do frogs eat their food?
3. What is a predator? What is a prey? Give one example of each.

E. Long Answer Questions

REMEMBERING UNDERSTANDING

1. What are the differences between the teeth of herbivores and omnivores?
2. What is meant by a food chain? How does it work? Draw a neatly labelled diagram of a food chain.

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HOTS Questions

APPLY



1. Humans are omnivore by nature. (Though, some humans choose not to eat meat. They are called vegetarian.) Consider your own teeth and explain why you are an omnivore.

ANALYSE



1. Why are teeth so important? Suppose a lion loses all its teeth in a fight with another lion. What will happen to this toothless lion?
2. If one of the members of a food chain completely dies out, what will happen to the other members of this food chain?

EVALUATE





1. Consider three isolated gardens, namely A, B, and C. A has only producers, B has only consumers, and C has both producers and consumers. Evaluate which garden is more likely to survive in the long run.

CREATE



1. Create a food chain using pictures. Collect the required pictures of living things from suitable sources. Paste them in your scrapbook to form a food chain. Also write this food chain in words. [Things needed: scrapbook, picture cuttings, colour pens, and glue.]
2. Create clay models of teeth of various categories of animals.

Cross-curricular Connect

Imagine you are a rabbit living in a burrow under a tree in a jungle. You must go out each day in search of food and keep yourself safe from predators. Once you have food, you gnaw at it to eat. Write a diary entry showing what a normal day in your life is like. (English)

A Value for You





1. Do you think animal hunting for fun should be banned? Give reasons for your answer.
2. 'More trees and less animals' or 'More animals and less trees' – which is preferable? Or do we need to give equal importance to both trees and animals? Give reasons for your answer.

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CASE-BASED QUESTIONS

Answer the questions on the basis of your understanding of the following case and the related studied concepts.

Anamalai Tiger Reserve is in the Indian state of Tamil Nadu. Bengal tiger, Indian elephant, Sambar deer, Indian leopard, and several other animals live there. More than 250 types of birds are also found there. Many of these animals are facing danger of dying out. The reserve is a protected area. This means no hunter is allowed to kill animals living here.

1. How are the animals in the reserve protected from danger?
2. We need to protect wild animals because
   a. if one kind of animal dies out, other animals will be fine.
   b. all animals will suffer if one animal in the food chain dies out.
   c. animals can produce their own food.
3. Animals in the Anamalai Tiger Reserve cannot be hunted by human beings. State true or false.
4. Name a few animals that can be found in the Anamalai Tiger Reserve.
5. If Anamalai Reserve is a tiger reserve, why do Sambhar deer also live there?

Go to MyInspire and attempt .

Let's Review

Come here after you have completed the chapter. Colour 1 to 5 to show how well you understand a topic. (5 = Very well; 1 = Not at all)

Describe the eating habits of animals.	
Explain why different animals have different types of teeth.	
Describe the different types of teeth that animals have.	
Explain what a food chain is.	

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