

Class:7	Subject: Science	Topic: Weather, Climate and Adaptation of Animals to Climate
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SUMMARY SHEET		
Learner Previous Knowledge	Habitats and adaptations of some animals and plants	
Target Knowledge for this Topic	Weather and its elements	
	Climate	
	Difference between climate and weather	
	Relationship between climate and adaptation of animals in polar and tropical rain forest region	
Learning Goals		
More Complex Learning Goal- Students will be able to deduce the importance of different adaptation in the animals in relation to their climate		
Target Learning Goal- Students will be able to explain the presence of the adaptive features in the animals.		
Simpler Learning Goal- Students will be able to define weather and climate		
Period No.	Lesson Objectives	Teaching Learning Materials Required
1	Recall their knowledge of habitat	- Board and markers - Reference sheet 1
2	Analyze the difference between weather and climate	- Board and markers - Map of Indian climate - Worksheet 1

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3	- Analyze the relationship between climate and adaptations. - Find out the adaptive features of animals living in polar regions. - Analyze the reason behind migration of animals.	- Board and markers - Worksheet 2
4	Find out the adaptive features of animals living in tropical regions	- Board and markers - Worksheet 3

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Period 1

Lesson Objectives

At the end of this lesson students will be able to:

- Recall their knowledge of habitat

Teaching Learning Materials required

- Board and markers
- Reference sheet 1

Details of Teaching Learning Experience

Seating Arrangement: - Outdoors - in the school garden

Lesson Beginning <u>Time:</u> 10 min <u>Purpose:</u> Activate the prior knowledge	<u>Introduction of Topic</u> - Take the students outside in the school garden. - Ask them to sit in a circle. - Help them recall their knowledge of habitats and adaptations by posing questions such as: - What is ecosystem? - What are habitats? Give examples. - How do organisms adapt to their surroundings? - List abiotic and biotic factors. - How are abiotic and biotic factors interdependent on each other?
Lesson Middle <u>Time:</u> 20 min. <u>Purpose:</u> Develop conceptual understanding	<u>Activity 1-Inside-Outside Circle</u> - Let the students stand in a big circle. - The teacher can speak aloud a statement from reference sheet 1. - All the students who agree with the statement will take a step inside while those who do not will continue standing. The students who do not move inside can then be asked to explain why they disagree with the statement. - Continue with this activity till you have used up all the questions given in the annexure. - Add more question according to your class.

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Lesson End <u>Time:</u> 5 min <u>Purpose:</u> • Finish up	<u>Finish Up</u> • Clear doubts of the students.
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Reference Sheet 1

Teacher's Reference

Statements to be read aloud for Activity

1. A habitat provides food, water, shelter and air to the organisms living in it.
2. A predator can either be an herbivore or carnivore.
3. Adaptations of organisms depend on their habitat.
4. All habitats have same abiotic factors.
5. The habitat depends on the animals which live there.
6. Habitat does not include biotic components.

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Period 2

Lesson Objectives

At the end of this lesson students will be able to:

- Analyze the difference between weather and climate

Teaching Learning Materials required

- Board and markers
- Map of Indian Climate
- Worksheet 1

Details of Teaching Learning Experience

Seating Arrangement: Normal

Lesson Beginning <u>Time:</u> 5 min <u>Purpose:</u> Activate prior knowledge.	- Ask the students about the weather of the day. - Ask the students whether they have seen weather report in the newspaper for any day. If yes, give them opportunity to share their experiences, - Ask them to state their understanding about the climate of India.
Lesson Middle <u>Time:</u> 25 min. <u>Purpose:</u> Develop conceptual understanding	- Discuss the meaning of weather with the students with the current situation of your surroundings. - Also state the weather of last few days so that they are able to relate with the definition of weather. - Explain the meaning of climate to the students with the help of the climate chart of India. - Ask them can the maximum and minimum temperature of a day decide the climate of the place? - Let them to attempt the questions of worksheet 1. - Discuss the answer with the class. - Make sure that all of them are in consensus with the answers.

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Lesson End <u>Time:</u> 5 min <u>Purpose:</u> • Finish Up • Homework Distribution	<u>Finish Up</u> • First, clear doubts if the students have. <u>Homework Assignment</u> • To find out the climate conditions of our neighboring countries.
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Worksheet 1

Skill: Drawing Inferences

1. Write the elements on which weather of a place depends.

2. What are the various elements of climate?

3. Ram says, “Today is as windy day”. Is he referring to climate or weather of the day?

4. Can we have different weather conditions in a day? Explain with an example.

5. Write two differences between climate and weather.

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Period 3

Lesson Objectives

At the end of this lesson students will be able to:

- Analyze the relationship between climate and adaptations.
- Find out the adaptive features of animals living in polar regions.
- Analyze the reason behind migration of animals.

Teaching Learning Materials required

- Board and markers
- Worksheet 2

Details of Teaching Learning Experience

Seating Arrangement: - Normal

Lesson Beginning <u>Time:</u> 5 min. <u>Purpose:</u> Introduce the topic	• Ask the students to state a difference between weather and climate. • Ask them to define adaptation. • Ask them to tell the relationship between adaptation and habitat. • Ask them the location of polar regions on earth. • Collate all the answers on the board.
Lesson Middle <u>Time:</u> 25 min. <u>Purpose:</u> Develop conceptual understanding	• Ask the students to name the animals found in polar regions. • Let them guess how the white colour of the body of penguins and polar bears help them. • Distribute worksheet 2 and let them think about the adaptive features of polar bear and penguin. • Discuss the different adaptations of polar bear and penguins. • Make sure that all of them are in consensus with the answers. • Discuss the term migration and reasons for migration by taking the example of Siberian crane which come to India during the winter months in polar regions.

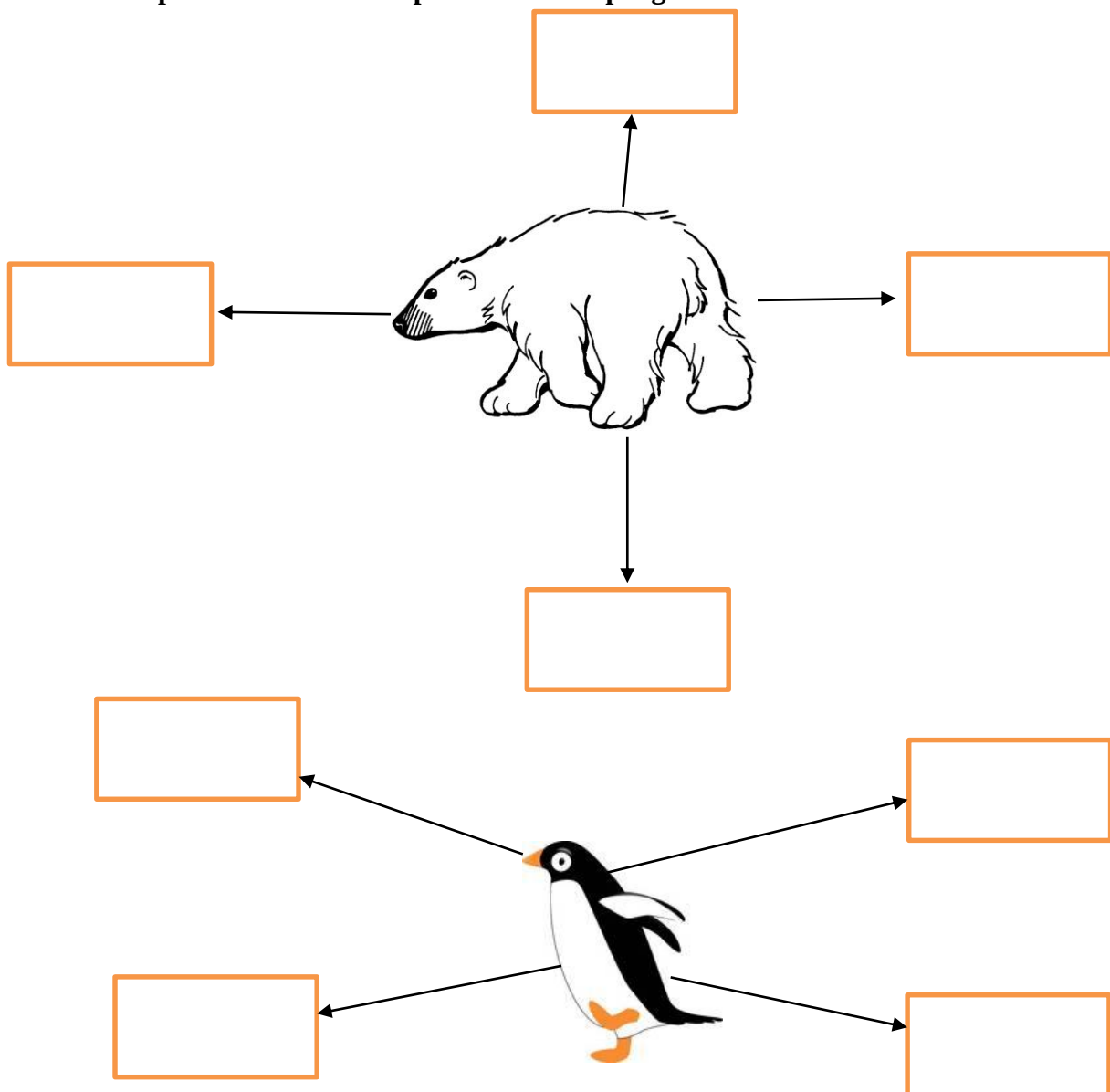
Lesson EndTime: 5 minPurpose:

Finish Up

- Clear doubts if any.

Worksheet 2**Skill: Drawing Inferences**

Q1. Write the adaptive features of the polar bear and penguin.



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Period 4

Lesson Objectives

At the end of this lesson students will be able to:

- Find out the adaptive features of animals living in tropical regions

Teaching Learning Materials required

- Board and markers
- Worksheet 3

Details of Teaching Learning Experience

Seating Arrangement: - Normal

Lesson Beginning <u>Time:</u> 5 min. <u>Purpose:</u> Develop conceptual understanding	• Ask the students about the polar regions and animals living there. • Ask the students about the location of rain forests in India.
Lesson Middle <u>Time:</u> 25 min. <u>Purpose:</u> Develop conceptual understanding	• Discuss the climate of tropical rainforests and discuss how it helps to have a great variety of fauna. • Ask the students to read the page number 75 and 76 and fill the graphical organizers given in the worksheet 3. • Discuss the answers in the class. • Make sure they are all in consensus with the answers.
Lesson End <u>Time:</u> 5 min <u>Purpose:</u> • Finish Up	• Clear doubts if any.

Worksheet 3Skill: Comprehension

Q1. Write the adaptive features of the following animals.

I am a _____



My adaptive feature is _____

I am a _____



My adaptive feature is _____

I am a _____



My adaptive features are _____

I am a _____



My adaptive features are _____

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I am a _____

My adaptive features are _____



I am a _____

My adaptive features are _____

