

11th GRADE INQUIRY BASED LESSON PLAN

ZOOLOGICAL PARKS OF INDIA

195 MINUTES



Google Earth Education

ZOOLOGICAL PARKS OF INDIA

195 minutes

OVERVIEW

Students will be guided on a tour of some of the India's top Zoological Parks using My Map. Students will use the images and videos to explore the purpose of Zoological Parks of India.

SUBJECT/TOPIC Biology/ Zoological Parks	AGE LEVEL 11 th Grade
(Section 2) Learning Objectives	Inquiry
 Students will gather evidence about Zoological Parks of India and infer their purpose (tourism, conservation, education, breeding). Students will identify the pros and cons of keeping animals in zoos. Students will write an argument essay in response to the question: Should animals be kept in captivity in zoological parks? 	Should animals be kept in captivity in zoological parks?
Materials Needed	Lesson Summary
 Access to Google Earth and My Maps Student internet access. Copies of Zoos Evidence Chart 	Engage: Locate Zoological Parks of India on My Map and explore the purpose of these zoos in India. Explore: Gather information from multiple sources about the zoological parks of India, use the Evidence Chart to record the name, purpose(s), and who is benefitting from the purpose(s) and create a list of the pros and cons of keeping animals in zoos. Explain: Identify the conditions of the animals in the zoological parks. Revise: Adjust hypotheses based on additional evidence from class discussion. Apply: Write an argument essay in response to the question: Should animals be kept in captivity in zoological

parks?



Sustainable Development Goals





Culminating Task/Assessment

Students will write an argument essay in response to the question: Should animals be kept in captivity in zoological parks?



Textbook Chapter

'Zoological Parks' is a topic from the chapter "The Living World" from Biology NCERT Textbook for Class 11



Engage (5 minutes)

- 1. Share My Map on 'Zoological Parks of India' with the students.
- 2. Ask the students to share their ideas about the conditions of animals in these zoos. Document student responses.
- 3. Introduce the essential questions that will guide the inquiry investigation: Should animals be kept in captivity in zoological parks?

Explore (25 minutes)

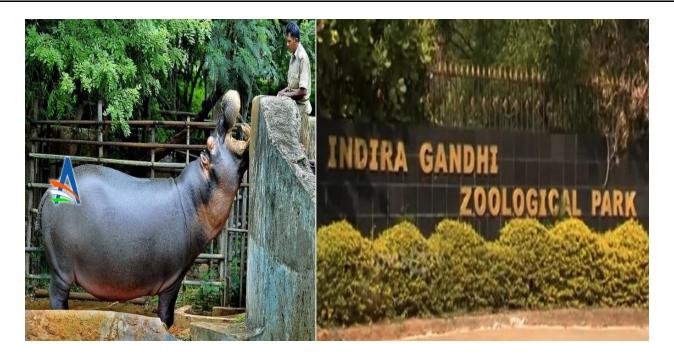
- 1. Provide students with copies of the Zoos Evidence Chart.
- 2. 15 zoological parks of India will be selected to "visit" on My Map, showing a variety of purposes (tourism, conservation, education, breeding).
- 3. Use images and videos to get a sense of the environment that the animals live in and how it compares to their natural habitat.
- 4. For each zoological park, students use the Evidence Chart, to record the name, purpose(s), and who is benefitting from the purpose(s).
- 5. Students will create a list of the pros and cons of keeping the animals in zoos.

Explain (20 minutes)

- 1. Organize students into partners. Ask each pair to share their observations from the images and videos featured in My Map.
- 2. Ask partners to share their thoughts on the common thing they noticed about the zoological parks shown on My Map (Possible student response: zoos are mainly used for the purpose of tourism).
- 3. Prompt them to record their thoughts in the Zoos Evidence Chart.
- 4. Facilitate whole group discussion in which students share their ideas about the different Zoological Parks with their classmates and ask questions about the ideas of others.
- 5. Students test hypotheses and record their findings

Revise (10 minutes)

- 1. Students will make adjustments to their hypotheses based on information gained in discussion.
- 2. Following the discussion, students will add their hypotheses in the Zoos Evidence Chart.



Next, repeat the process with a second source of information.

Explore (25 minutes)

- 1. Teachers introduce the second source of information, the Voyager Story, 'Zoos and Animal Parks'.
- 2. Teacher selects 10 zoos and animal parks of the world to "visit", showing a variety of purposes (tourism, conservation, education, breeding).
- 3. Utilize Street View to get a sense of the environment that the animals live in and how it compares to their natural habitat.
- 4. For each zoo or animal park, students use the Evidence Chart to record the name, purpose(s), and who is benefitting from the purpose(s).
- 5. Students will create a list of the pros and cons to keeping animals in captivity based on evidence gathered from the Voyager Story, Zoos and Animal Parks and supporting texts.

Explain (20 minutes)

- 1. Return students to partners. Ask each pair to share their observations from the Google Earth Voyager Story, Zoos and Animal Parks.
- 2. Ask students what they think is the main purpose of zoos based on this source of evidence. Prompt them to record their thoughts in the Evidence Chart.
- 3. Ask partners to share their thoughts. (Possible student response: zoos are used for conservation of animals)
- 4. Allow time for students to share their ideas with the class and ask questions about the ideas of others.
- 5. Students test hypotheses and record findings.

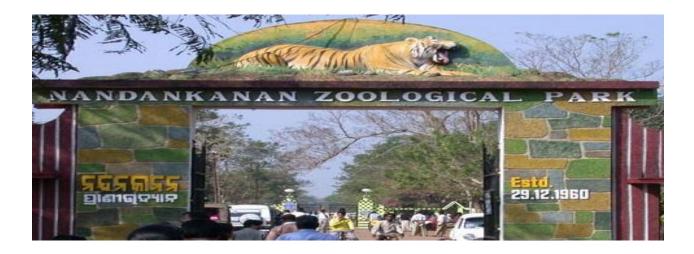
Revise (10 minutes)

- 1. Students will make adjustments to their hypotheses based on information gained in discussion.
- 2. Students to add to their hypotheses in the Zoos Evidence Chart.

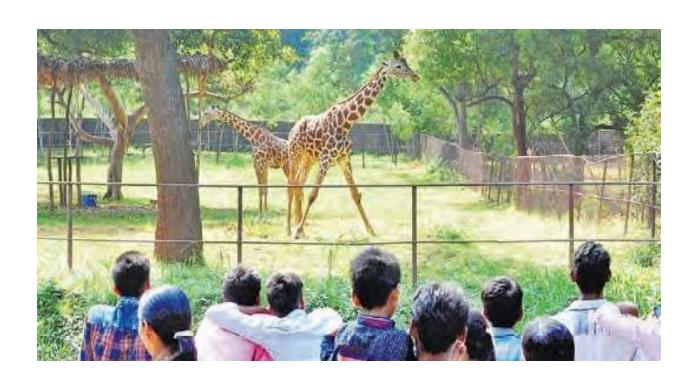
(Option to repeat this process with additional sources of information, each time resulting in an updated hypothesis.)

Apply (80 minutes)

- 1. Organize students into small groups. Each group will work collaboratively to respond to the following argument essay prompt: Should animals be kept in captivity in zoological parks?
- 2. Provide students access to the internet to research questions generated during the investigation and gather additional information about zoos and animal parks of the world.
- 3. Allow time for each group to present their argument to the class.
- 4. Students to support their claim with specific evidence from the Voyager Story, Zoos and Animal Parks and supporting texts.



Evaluate: Rubric					
	Exceeding	Meeting	Approaching	Beginning	
Claim and evidence	Clearly stated claim. 3 to 5 pieces of evidence from Voyager Story and/or text. Evidence is relevant and demonstrates student understanding. Clear explanation for every piece of evidence.	Clearly stated claim. 3 pieces of evidence from Voyager Story and/or text. Evidence is relevant and demonstrates student understanding. Explanation of evidence is unclear.	Clearly stated claim. 1 to 2 pieces of evidence from Voyager Story and/or text. Evidence is irrelevant and/or does not demonstrate student understanding. Explanation of evidence is unclear.	Clearly stated claim. 1 piece of evidence from Voyage Story and/or text. Evidence is irrelevant and/or do not demonstrate student understanding. Explanation of evidence is uncle	
Transitional strategies and Vocabulary	Use of a variety of transitional strategies. Use of domain specific vocabulary. Strong command of conventions. Introduction/ conclusion acknowledges the counterclaim and refutes it.	Adequate use of transitional strategies. Use of domain specific vocabulary. Adequate command of conventions. Introduction/ conclusion acknowledges the counterclaim.	 Inconsistent use of transitional strategies. Unclear use of domain specific vocabulary. Partial command of conventions. Does not acknowledge the counterclaim. 	No use of transitional strategies. No use of domain specific vocabulary. Lack of command of conventions. Does not acknowledge the counterclaim.	
Participation	Student did an equal share of the work; shared with, listened to, and showed respect for group members; stayed on task.	Student did a fair share of the work, was respectful to group members most of the time, and/or used most of the class time wisely	Student did less than a fair share of the work, was sometimes disrespectful to group members, and/or wasted a lot of work time.	Student let others do most of the work, was rude or disrespectful, and wasted most of the work time.	



Additional Resources

• Supporting Texts: https://ww2.kqed.org/education/2016/05/11/shouldanimals-be-kept-in-zoos/

https://newsela.com/read/overview-zoos/id/28236/

- Documentary Film, Wild Thing: The Smithsonian National Zoo-https://www.youtube.com/watch?v=QMfVrDTjqh0
- Documentary Film, Zoochosis: The Living Conditions of Animals in Captivity-https://www.youtube.com/watch?v=EyFOUGppHco
- PETA-Zoos: Pitiful prisons-https://www.peta.org/issues/animals-in-entertainment/animals-used-entertainment-factsheets/zoos-pitiful-prisons/
- National Geographic-Inside the Dark World of Captive Wildlife Tourism- https://www.youtube.com/watch?v=ITlo2ZBJOWU
- NCERT Class 11 Biology: https://ncert.nic.in/ncerts/l/kebo101.pdf

Options for Differentiation

- Provide students with an argument writing template
- Provide students with an argument essay writing checklist.

Credits

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ZOOS EVIDENCE CHART

ZOO	PURPOSE (tourism, conservation, education, breeding)	WHO DOES THIS BENEFIT? (people, animals or both)

zoos

PROS	CONS

ARGUMENT ESSAY WRITING TEMPLATE

Introduction:
Claim:
Evidence:
How does this evidence support your claim? Explanation:
Evidence:
How does this evidence support your claim? Explanation:
Conclusion: