

LESSON TITLE–WATER POLLUTION

Time 1hr 40 minutes

OVERVIEW: Students will explore the Journey of River Ganga and analyse the factors responsible for Ganga river Pollution using My maps, Google Voyager Google Earth engine.

SUBJECT/TOPIC
SCIENCE- ENVIRONMENTAL
SUSTAINABILITY

AGE LEVEL
GRADE- VIII

Learning Objectives

By the end of the activity, the students will be able to:

- Students will learn about what causes water pollution and how to be environmentally aware.
- Analyse factors responsible for water pollution.
- Sensitized to keep water bodies clean and conserve water.



Inquiry

Students will be shown the slides and questions based on the same will be asked. After that.....

Students will be shown the time laps app to brainstorm and motivate to inquire more about Pollution in Ganga river.



Materials Needed

Access to **Google Earth**.

https://earth.google.com/earth/rpc/cc/drive?state=%7B%22ids%22%3A%5B%221KY8hYVBV_B1TQJHA5SCu8CMVpxxmuIPE%22%5D%2C%22action%22%3A%22open%22%2C%22userId%22%3A%22114298002013522535097%22%7D&usp=sharing

My Maps On Journey of Ganga

https://www.google.com/maps/d/edit?mid=1GTz06P7QcDhe5gxhw_w78k7f5uz_EZhM&usp=sharing

Time laps app

Student internet access



Lesson Summary

Engage: At the beginning of the lesson, the class will do a Think-Pair-Share to discuss the objective. Students will discuss the journey of Ganga river from Gangotri glacier through My Maps

Explore: Students will explore the reasons for water pollution around Ganga river

Explain: Students on the basis of gathered information will analyse the reasons (Thermal Plants, Tannery) for the pollution being caused in River Ganga.

Revise: All the terms and investigation will be listed

Apply: Sensitized students to take care to keep water bodies clean and conserve water..



Sustainable Development Goal



Culminating Task/Assessment

Students will give presentation in a group. Students will present in the following points:



Textbook Chapter

Chapter Pollution Air And Water

Engage (5 minutes)

<https://www.safewater.org/operation-water-pollution-1/2017/2/2/lesson-1-water-pollution>

Explore (25 minutes)

1. Students are shown the journey of River Ganga through My Map.
2. Students will be asked to explore the level of contamination in river Ganga.

Explain (20 minutes)

1. Teachers organize students into small groups or partners.
2. Students share their findings and now find the reason for Pollution of Ganga river.
3. Teachers facilitate whole group discussion in which students collect the evidences.
4. Students record their findings.

Revise (10 minutes)

1. Students will do quiz on Ganges
2. <https://forms.gle/Na4JbnBdMtEKmgkE9>

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

Explore (25 minutes)

1. Teachers introduce the second source of information. Google Earth Engine
2. Students locate the thermal and atomic power plants and industries near Ganga river.
3. Students identify relationships or patterns and form a hypothesis based on information gained.

Explain (20 minutes)

1. Based on the research students explain logically the reason for pollution in the River Ganga

Revise (10 minutes)

MIND MAP-<https://docs.google.com/document/d/1ja-vQMOAka1b6aw-jj1-LLnQVbtgr23gqA-ecYgHcTk/edit?usp=sharing>

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

Apply (80 minutes)

1. Conservation of water, keeping water bodies clean and rain water harvesting becomes the main concerns in daily life .

Evaluate: Exemplar Response and/or Rubric

- Students will prepare a report on their findings and present it in the class

Additional Resources

<http://www.grinningplanet.com/2005/07-26/water-pollution-facts-article.htm> (Facts of water)

Options for Differentiation

- Possible modifications, adaptations or extension activities specific to this lesson.

Credits

Written by [XXX] and designed by [X and X] in collaboration with [XXX]

Credits

Written by [KAVITA PANT] and designed by [X and X] in collaboration with [XXX]
School Name LEARNING PATS SCHOOL

