



Imperial Heritage School

SECTOR-102, GURUGRAM

HOLIDAY

HOMEWORK

SESSION 2021-22

GRADE- IX

THEME

Natural Resources



“The capacity to learn is a gift; the ability to learn is a skill; the willingness to learn is a choice”.

A Holiday Homework is an attempt to enhance children’s imagination. Doing it in the right spirit with enthusiasm will make it a great learning experience and will make your child an independent, inquisitive learner who will enjoy the learning process.

Dear Parents,

We are ready to welcome the Summer Vacation after a year of online schooling. The year gone by has taught us valuable lessons and gave us the ability to spring back from all challenges that came our way. I must thank you for supporting us and making the online teaching learning process, a successful joint venture between us. This break is a great opportunity to cheer up our souls and refresh our minds. This is the time to bond with our children and give them credit for quickly adopting to the new normal conditions and adjusting to it without any apprehensions or doubts. They attended classes, did activities and appeared for their exams with the same gusto and enthusiasm as they would do in a functional school. Kudos to our students.

Here are some tips for you, parents, to make the most of this time where there are no deadlines to meet, no assignment to be submitted or a test to study for. This is your “US” time, enjoy it and make beautiful memories.

- Avoid negativity in all forms at home. Whether from News on TV or from the neighbourhood. Children get affected and sometimes do not express themselves. Discourage any talks or discussions that can have a negative impact on our children’s impressionable mind.*
- Have at least two meals together with your children.*
- Explain about the hard work our farmers put in so that we can have our meals on the table and ask them not to waste their food.*
- Let them wash their own plate after every meal. Children learn dignity of labour from such activities.*
- Encourage them to help you with preparing meals. Let them make their own vegetable and fruit salad.*
- Encourage them to learn 5 new words in English, Hindi and list them in a note book.*
- Nurture your child’s interest – be it art, music, dance or anything else. Let him/her pursue a hobby of his /her own choice.*
- Please train your child to become independent in his daily chores.*
- Let him/her keep the house clean–clear the toys, books or craft after he/she has finished playing with it. Let them lend you a hand with basic household chores like dusting and mopping, putting out clothes to dry, folding them etc.*
- Be polite while speaking and talk softly.*
- Inculcate proper toilet habits.*
- Remember to converse in English with your child.*
- Gently encourage your child to make a kitchen garden by planting seeds. Knowledge about plants and trees are an integral part of your child’s growing up.*
- Share stories about your childhood and your family history.*
- Assign a permanent workplace and a work-time. This brings in discipline in your child’s life.*
- Make sure you are spending quality time with your wards amidst this tensed environment.*

And now a word for my students:

Dear Students,

With summer holidays around the corner, my heart swells up with an array of emotions. You all have worked hard in the past few months and it is time to have a refreshing vacation.

To maintain the educational continuum and to keep in view the rejuvenation you need, an enriching homework for the holidays is designed to keep you constructively busy and put boredom at bay. Continue to read e-newspaper every day and don't forget to complete your notebooks and assignment of the syllabus covered in online classes during April and May.

Don your thinking cap, wear your magic mantle to put forth your creative side. Have fun and frolic, build up your learning activities as a treasure.

Looking forward to seeing you soon, online.

Guidelines for Homework:

- Holiday homework will be graded; hence submission of work on time post vacation is mandatory for all the students.*
- IMPORTANT- In case resources are not available, the homework can be presented in a digital form (MS Word, MS PowerPoint, MS Excel)*
- The work will be evaluated for all the subjects on the following parameters.*
 - 1. Idea and content*
 - 2. Presentation*
 - 3. Ability to answer the questions*
 - 4. Innovativeness.*
 - 5. Creativity*

Happy summer vacations! Enjoy, take rest and be back with full enthusiasm.



MULTI DISCIPLINARY PROJECT:

For true learning to happen, concepts have to be linked to real life situations. The ultimate aim of education is- *learn not for a year but for a life time*. The Multi-disciplinary Project is one such step in this direction.

Multi-disciplinary projects are an effective strategy to promote collaborative learning. They develop:

- ❖ Critical thinking skills
- ❖ Written and verbal communication skills
- ❖ Technological skills
- ❖ Consolidate learning by combining ideas from many perspectives
- ❖ Consider an alternative way of acquiring knowledge

Mother Nature has given us many wonderful gifts that not only help us to survive but also to live our life in a prosperous way. One of these gifts is the Natural Resources. Natural resources are materials that help humans to meet their needs. These are nature's gifts to us, which we should use adequately. We need to use renewable resources more because excessive use of non-renewable resources can create trouble for our future generation. So, we must use natural resources properly without creating any problem for the next generation. Let us explore the importance of Water as a Natural Resource.

ENGLISH

1. Read the poem *The Lake Isle of Innisfree* from Beehive and draw a **poster** to showcase the calmness and serenity of the lake.

2. Innisfree is an uninhabited island within Lough Gill, in Ireland. Now, it seems, that someone has made a retreat on the island, to give people an opportunity to live in a peaceful environ for some time. Make a detailed **plan** of the retreat showcasing the different areas that it has. Also write a **diary entry** in 120- 150 words to show how you typically spent your days there. Use two A4 size sheets- one for the plan of the retreat and the other for the diary entry.



3. There are a lot of poems that have been written around lakes- one of them being Daffodils by Williams Wordsworth. Find out five other poems on the similar theme. Present the central themes of these poems through a **power point presentation** along with information about the poets. The presentation should be of a maximum of 8 slides, including the introduction.

HINDI

1) 'प्राकृतिक संसाधनों' पर एक आकर्षित पोस्टर तैयार कीजिए

2) हम सभी जानते हैं कि प्राकृतिक संसाधनों का हमारे जीवन में महत्वपूर्ण स्थान है। 'प्राकृतिक संसाधनों' पर एक अनुच्छेद लिखिए जिसमें कम-से-कम दस शब्द उपसर्ग से निर्मित व दस शब्द प्रत्यय से निर्मित होने चाहिए। अनुच्छेद लेखन के बाद उपसर्ग व प्रत्यय को अलग से A4 साइज शीट पर लिखिए।

MATH

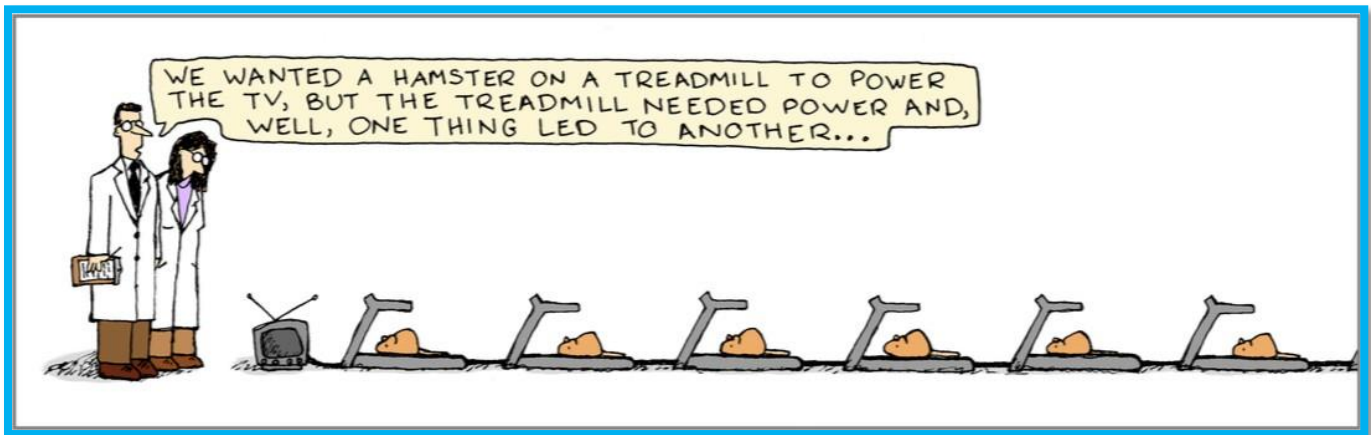
Natural Resource- Water

1. We are all aware of the Save Ganga Project. Make a **map** (on an A3 size sheet) from the origin of Ganga (Gangotri) up to the place where it meets with the Bay of Bengal. List six major cities on its way and calculate the distance between each. Write all the distances in a tabular form.

2. Research last 10 years data on how much river Ganga is polluted every year and what is the growth of the cleaning project in that year. Present the data through a bar graph on **power point presentation**. You will have to **speak** for at least two minutes on the information you collected.



3. Renewable energy sources are those that can be replenished from natural processes and are derived from the sun, wind, rains, tides, plants, and heat from deep inside the Earth. These energy resources provide us with solar power, wind power, hydropower, biomass and geothermal power. They are Earth friendly power sources that have the potential for providing clean energy to even the most remote locations on Earth. **Solve the given sums on Renewable Energy.**



1. Biomass accounts for approximately 14% of all fuel consumption in the world. What fraction of all fuel consumed is biomass?
2. In a developing country, most of their biomass fuel comes from wood ($\frac{1}{4}$), crop residues ($\frac{1}{3}$) and animal waste ($\frac{1}{8}$). What is the total fraction, decimal, and percentage amount from these three sources?
3. Suppose you are interested in incorporating several solar energy concepts into your home. You are told that you can save approximately $\frac{1}{5}$ on basic electric costs and an additional $\frac{1}{3}$ on heating costs.
 - A. What fraction of your utility bill will you save by using solar heat?
 - B. If your monthly utility bill is approximately, \$125.00, how much money could you save on your bill each month?
4. If wind turbines were installed in the Great Plains, along coasts, and in windy areas, wind energy could fulfill 20% of the U.S. energy need. What fraction of the U.S. energy need wouldn't be filled?
5. Only 7.5% of the energy consumed in the U.S. is renewable energy, and 40.8% of the energy consumed in the U.S. is petroleum gas. What fraction of the total energy used in the U.S. is renewable energy and what fraction is petroleum?
6. In percent, how much more Petroleum is consumed than renewable energy?
7. If energy efficient light bulbs use 75% less energy, what fraction of energy is wasted by a traditional light bulb?

SOCIAL SCIENCE

ACTIVITY-1 (Roll. No. 1-7)

An insight into the cultural and spiritual value of water in India.

Namami Gange Programme', is an Integrated Conservation Mission, to accomplish the twin objectives of effective abatement of pollution, conservation and rejuvenation of National River Ganga.

Draft a **Tweet** or **Instagram post** or release Gange Theme song on Facebook or You Tube- the digital media to enhance the visibility of the programme.



ACTIVITY-2 (Roll.No. 1-7)

Natural resource accounting for Indian states

The seven sacred rivers are: Ganges River, Yamuna River, Indus River, Saraswati River, Godavari River, Narmada River and Kaveri River.

On an **outline map of India**, mark and label the seven sacred rivers of India.

ACTIVITY-1 (Roll. No. 8-15)

Coal is the main source of energy in India as it fulfills almost 67 per cent of the total commercial energy consumed in the country. This fossil fuel is found in a form of sedimentary rocks and is often known as 'Black Gold'.

One way of coal conservation is to avoid the wastage. Switching to alternative sources such as solar energy in the forms of solar heater, solar cookers, use of natural gas and wind energy are few ways to reduce the usage.



Prepare a **working model** of a Geothermal Power Plant / Wind Turbine / Tidal Power Generation Plant.

Or

Conduct an **Awareness Campaign** to conserve energy at school/home through energy audit by creating and distributing brochure using the digital media to enhance the visibility of the campaign.

ACTIVITY-2 (Roll. No. 8-15)

Natural resource accounting for Indian states

India is majorly dependent on coal for its energy needs. We have vast resources of high-grade coal in several states.

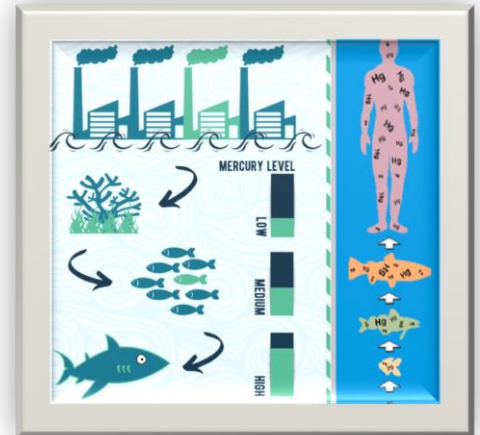
On an **outline map of India**, mark and label State wise Coal Reserves in India.

SCIENCE

Note: Activity 1 will be done by students with odd roll numbers and activity 2 will be done by students with even roll numbers.

Mercury Contamination of Aquatic Ecosystems

Water is supreme crucial part of human and animal life. Contaminated water is biggest problem in the world. Mercury, a liquid metal, which is also called as quicksilver and is a potent neurotoxin that can accumulate in fish to levels of concern for human health and the health of fish-eating wildlife. The level of mercury contamination varies in various water bodies. This contaminated water raises issues mainly for drinking and agriculture purpose. Mercury is the leading cause of impairment in the Nation's estuaries and lakes and was cited in nearly 80 percent of all reported fish-consumption advisories.



Make a factual report addressing the following issues:

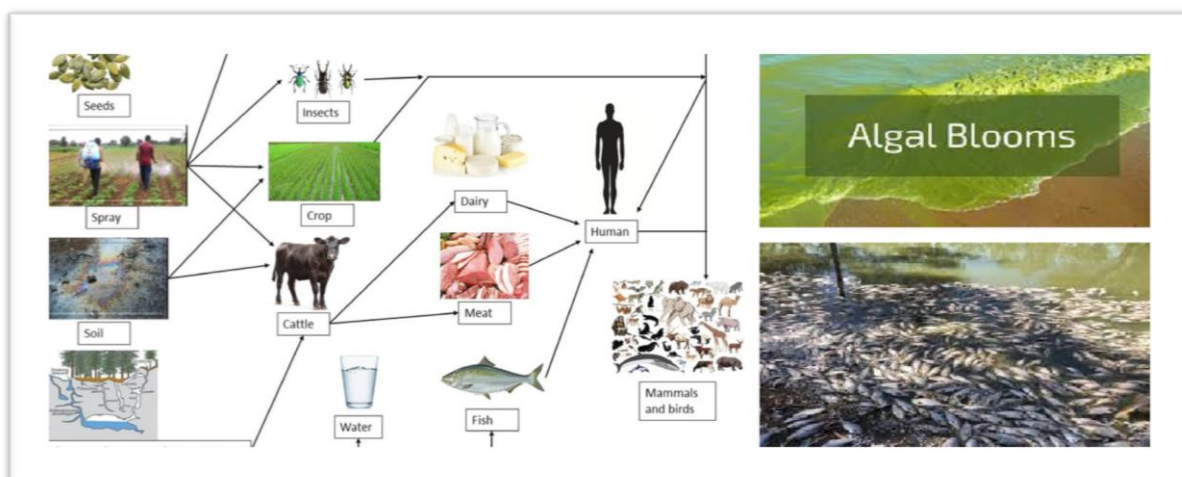
- 1) Natural and Human activities responsible for mercury contamination of aquatic ecosystems.
- 2) Mercury Bioaccumulation (higher concentrations in tissues of aquatic plants and animals than in water) and Biomagnification (higher concentrations at increasingly higher levels in the food chain). *Illustrate with the help of well labelled food chains.*
- 3) Chemical forms of mercury in air, water and biota.
- 4) Health hazards of Mercury.

Water pollution from and to agriculture

Agriculture accounts for 70% of total water consumption worldwide and is the single-largest contributor of non-point-source pollution to surface water and groundwater. Agriculture intensification is often accompanied by increased soil erosion, salinity and sediment loads in water and by the excessive use (or misuse) of agricultural inputs (e.g., fertilizers) to increase productivity. Eventually this is a reason of concern for environment and human health.

Make a Factual report covering following aspects:

- 1) Balanced and judicious use of fertilizers is the key to efficient nutrient use and for maintaining soil productivity. How?
- 2) How do fertilizers and pesticides cause water pollution?
- 3) Why are nutrients from fertilizer harmful to aquatic ecosystems?
- 4) Pesticides are known to kill zooplankton and small insects. How does it affect aquatic ecosystem?
- 5) How do fertilizers and pesticides enter the food chain and what are their health hazards? *Illustrate with the help of well-labelled food chains.*
- 6) What are the alternatives of fertilizers and pesticides?



FRENCH

BIENVENUE

The vacations are started but the learning never stops. Our school helps you all in learning a new language with an easy way. Let's share the knowledge:

Make a PPT for explaining the need & Uses of WATER in human life.

The slides must include information about

- Uses of water
- Sources of fresh water
- Need to save water



Note: The PPT should have 10 to 12 slides, with relevant images to explaining the presentation and use the French vocabulary.

COMPUTERS

Make a **short movie** in any of the Movie Making Software on the topic "Importance of Natural Resources for achieving Sustainable Goal No.7 (Affordable and Clean Energy)".

