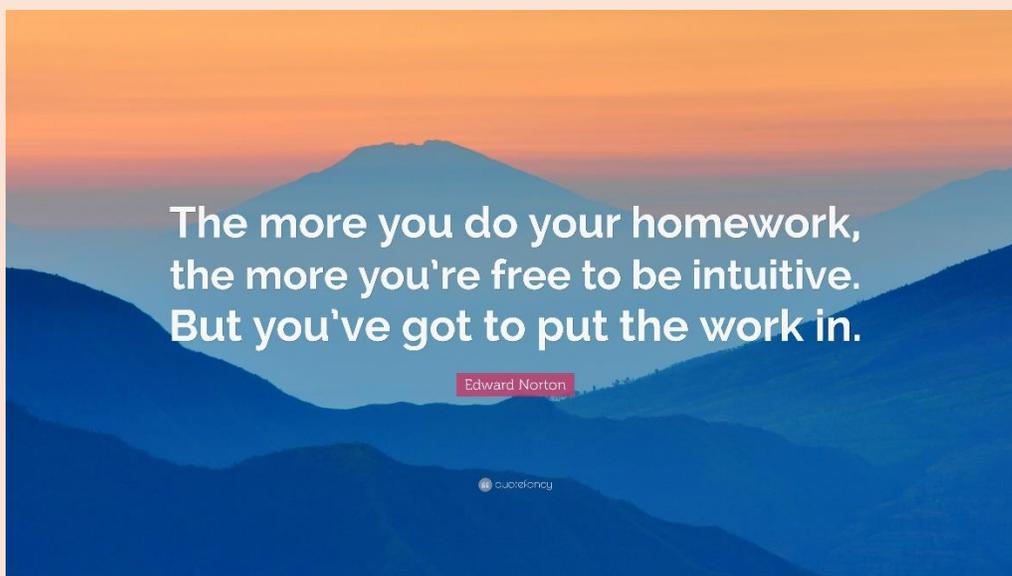


**POLICE DAV PUBLIC SCHOOL
CLASS –IX (SCIENCE) (SESSION 2024-2025)
HOLIDAYS HOMEWORK**



1) ART –INTEGRATED PROJECT:

“Be the creator of your own “scientific saga showing research reflections”

Prepare your own “Science Inquiry notebook” show casing your research about the similarities and dissimilarities between the states Odisha and Punjab on the basis of following parameters related to agriculture:

- ❖ ***Type of soil***
- ❖ ***Agriculture practices***
- ❖ ***Vegetation***
- ❖ ***Methods of irrigation***
- ❖ ***Agricultural Economic Status***
- ❖ ***Collection of data about Temperature variations in summer for last five years***

LEARNING OUTCOMES:

The Student

- ***Differentiates between the two states on the basis of their Inclusive agriculture practices***
- ***Understands the difference existing in the economic status of both the states***

- *Develops expressive communication and critical thinking skill by creating their own inquiry notebook.*
- *Draw inferences from their recorded data about temperature.*

INSTRUCTIONS:

- *Choose any notebook which will be dedicated to your science inquiry notebook.*
- *Begin your inquiry notebook by creating mind maps of chapters done in the month of April –May.*
- *Begin each research entry with the proper date and time. Give each entry a perspective title related to your research.*
- *Summarize your findings on comparison chart between the states on the basis of mentioned parameters*
- *Include sketches and label it to explain your findings.*
- *Students are directed to write reflection about the above mentioned project in the following format:*
 - *What New I learnt through this project?*
 - *What was the WOW moment throughout your research?*
 - *What difficulties I found in doing this project?*
- *Students are required to submit this ART-INTEGRATED PROJECT (Science Inquiry Notebook) to their science teachers' right after summer vacations.*

PARAMETERS FOR ASSESSMENT: (MAX MARKS: 20)

- *Creativity (5 marks)*
- *Presentation (5 marks)*
- *Accuracy of content (5 marks)*
- *Originality. (5 marks)*

CLASS IX SUBJECT SCIENCE **CH – 5 (THE FUNDAMENTAL UNIT OF LIFE)**

1. Study of cell structure under microscope is:
(i) Cytology (ii) Cell Membrane (iii) Cytochemistry (iv) Anatomy
2. Which of the following does not have cellular structures?
(i) PPLO (ii) Amoeba (iii) Viruses (iv) Archaeobacteria
3. Pollutants and carcinogens are detoxified by
(i) SER in liver (ii) RER in liver (iii) RER in kidney (iv) SER in kidney
4. Identify human cells which lack nucleus-
(i) WBC (ii) RBC (iii) Nerve cell (iv) Smooth muscle
5. Double membrane is absent in-
(i) Mitochondria (ii) Chloroplast (iii) Nucleus (iv) Lysosome

6. What is the primary function of leucoplasts?
7. Name and define the mechanism responsible for release of water on adding salt to the vegetables.
8. Why viruses cannot reproduce outside the cell.
9. State any two reasons for plant cells to have large central vacuole.
10. "Lysosomes are a kind of waste disposal system of a cell". Justify the statement.
11. Grass looks green and papaya appears yellow. Which is the cell organelle responsible for this? Write the structural features of this organelle.
12. What is the significance of presence of cell sap in vacuoles?
13. List two similarities and two dissimilarities between a plant cell and an animal cell.
14. Tabulate the difference between nucleoid and nucleus.
15. How are following related to each other?
Chromatin and chromosomes. (ii) Chloroplast and chlorophyll. (iii) Genes and DNA.
16. How does the feature of flexibility of plasma membrane help a unicellular organism like Amoeba?
Name and explain the process.
17. Explain the structural difference between plastids and mitochondria. Write one similarity between the two.
18. Distinguish between hypotonic solution, isotonic solution and hypertonic solution.
19. Draw a well labelled diagram of an animal cell and label the following organelles:
The organelle that contains powerful digestive enzymes. (ii) The organelle that has its own DNA.
(iii) The organelle that forms cytoplasmic framework.
(iv) The organelle that helps in expelling out excess water in Amoeba.
20. Explain your observation in the following with reason involved in the process.
(i) Salt is applied to raw mango pieces. (ii) Dried almonds are kept in water for few hours.
(iii) Excess amount of fertiliser is added to green grass lawn.
(iv) A red blood cell is kept in a concentrated salt solution.
21. Draw a neat labelled diagram of a prokaryotic cell.
22. What are the three main functions of the cell membrane?
23. Which part of the plant cell permits it to withstand very dilute external medium without bursting and how?
24. Why is the inner membrane of mitochondria deeply folded?
25. There would be no plant life if chloroplasts did not exist. Justify.
26. Differentiate between RER and SER. How is endoplasmic reticulum important for membrane biogenesis?
27. If cells of onion peel and RBC are separately kept in hypotonic solution, what among the following will take place? Explain the reason for your answer.
 - (i) Both the cells will swell.
 - (ii) RBC will burst easily while cells of onion peel will resist the bursting to some extent
 - (iii) a and b both are correct.
 - (iv) RBC and onion peel cells will behave similarly.

28. A person takes concentrated solution of salt, after sometime, he starts vomiting. What is the phenomenon responsible for such situation? Explain.

29. Why is a cell said to exhibit division of labour?

30. Do you agree that "A cell is a building unit of an organism?" If yes, explain why?

31. Why does the skin of your fingers shrink when you wash clothes for a long time?

32. What is the function of centrosomes?

33. Why cell division is necessary?

34. Differentiate between meiosis and mitosis.

35. Describe the structure of nucleus.

36. Comment on the following:

(i) Chloroplast is called "Kitchen of the cell".

(ii) Chloroplast is semi - autonomous structure.

ASSERTION – REASON

In each of the following questions, a statement of Assertion is given by the corresponding statement of Reason.

Of the statements, mark the correct answer as.

(a) If both assertion and reason are true and reason is the correct explanation of assertion

(b) If both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.

(c) If Assertion is true, but Reason is false.

(d) If Assertion is false, but Reason is true.

(e) Both assertion and Reason are false.

ASSERTION- Cells having cell wall withstand very dilute external media without bursting.

REASON- The cell wall exerts an equal pressure against the swollen cell. (a)

ASSERTION – Prokaryotic cells are primitive and larger than eukaryotic cells.

REASON- Prokaryotic cells lack cytoplasmic organelles. (d)

ASSERTION- Rudolf Virchow proposed cell theory.

REASON- Cell theory states that all plants and animals are composed of cells. (b)

ASSERTION- Robert Brown discovered nucleus.

REASON- Nucleoplasm and cytoplasm of a living cell together form the protoplasm. (b)



I deate I nnovate

Create

“If you look at history, Innovation comes from creating environments where their ideas can connect”

OBJECTIVES: THIS PROJECT IS DESIGNED

- ❖ To nurture their scientific temperament
- ❖ To Foster creative minds
- ❖ To encourage them to explore and think critically

❖ *To inspire them to develop innovative ideas, projects and solutions that address real world challenges.*

INSTRUCTIONS:

1. *Think about any problem related to your surroundings or various challenges faced by people in society.*
2. *Ideate about a possible solution that addresses the problem statement. The solution must be based upon novelty, social applicability, environment friendliness, user friendliness and comparative advantage over the existing similar technologies.*
3. *Make a word document highlighting your innovation.*
4. *Hard copy will be submitted to the Science Teacher on July 1, 2024.*
5. *Students can refer to the website www.inspireawards-dst.gov.in for the different examples of ideas.*

“The Young minds are the creative minds we have. So Go as far as you can because world needs you badly”

**CLASS-IX, ENGLISH
HOLIDAYS HOMEWORK**

Art –Integrated Activity

Theme- Cook any dish from Odisha

The pupils will cook any dish from Odisha with the assistance of their parents. They will click the pictures of the process paste them on an A3 size sheet and write the procedure writing of the same dish on the same sheet.

ग्रीष्मावकाश गृह कार्य

कक्षा - नौवीं

विषय - हिंदी

भेजी गई पीडीएफ फाइल का प्रिंट आउट लेकर एक सुंदर पोर्टफोलियो तैयार करें।

HOLIDAYS HOMEWORK IT

CLASS- IX (2024-25)

- ❖ **Draw a Keyboard on A3 sheet and label it according to the allotted fingers.**
- ❖ **Write the colour indicators and descriptions of typing speed given at page no. 35 and 39.**

Activity 1: Building confidence through positive words

Make a list of feel-good sentences that you will say to yourself every day when you wake up in the morning and before you go to bed. For example, you can think of:

- (a) **Something that you are really proud of**
- (b) **A compliment you have received from someone that day or the previous day**

(c) A learning that you had after reflecting upon your failure

Activity 2: SMILE MODEL

Create a **SMILE MODEL** (pg no. 72 **Self Management Skills**) and paste your smiling photograph on A4 Size sheet and mention examples according to you.

Activity 3: Helping others/working for the community

Social work makes you feel good and happy and helps you to be positive. Think of a situation that you see every day in your neighbourhood and paste the photograph of the same.

- Dirty streets or
- A hungry cow or
- A big hole on the road
- Help the needy person

Go home and do something to help in that situation. Write what you did in your notebook and submit it to your teacher after holidays.

PHYSICAL ACTIVITY TRAINER (418)

HOLIDAYS HOMEWORK

You can do any two activities out of these three:-

- 1.Prepare a poster for the invitation of sports day and explain about the sequence of games.
- 2.Prepare a chart on Macro and Micro nutrition(make it on full size chart)
- 3.Prepare a chart on PRICE-R with relative pictures(make it on full size chart)

HOLIDAY HOMEWORK PUNJABI

ਵਿਦਿਆਰਥੀ ਬੱਸ ਕੰਡਕਟਰ ਅਤੇ ਸਾਂਝੀ ਕੰਧ ਕਹਾਣੀਆਂ ਪੜ੍ਹ ਕੇ ਇੱਕ-ਇੱਕ ਅੰਕ ਵਾਲੇ ਪ੍ਰਸ਼ਨ ਉੱਤਰ ਕਾਪੀਆਂ ਤੇ ਲਿਖ ਕੇ ਲਿਆਉਣਗੇ ।(ਘੱਟੋ-ਘੱਟ-40 ਪ੍ਰਸ਼ਨ ਉੱਤਰ)

CLASS – IX
SUBJECT – BEAUTY AND WELLNESS (407)

PROJECT WORK:

As part of your holiday homework and internal assessment, you are required to prepare a project file. This project aims to keep you engaged with your studies while allowing you to explore new topics creatively and independently. The project file must cover all the topics mentioned below:

- Career opportunities in The Beauty And Wellness sectors
- Beauty Therapy Services
- PPE Kit
- Parlour Hygiene
- Structure of Nail
- Manicure
- Pedicure
- Types of Hair
- Structure of Hair
- Hair and scalp conditions and diseases

INSTRUCTIONS:

- Use only A3 size sheets
- Minimum 15 pages for project file including title page, acknowledgement, certificate as well as index
- It should be creative and presentable

Internal assessment is totally based on thus project file.

Holidays Homework

Class IX Social Science

MONTH OF JUNE BROUGHT LONG, HOT DAYS AND NOW WE HAVE OUR SUMMER HOLIDAYS SCHOOL IS CLOSED AND NO SET RULES WAKING UP LATE AND GOING TO POOL. LITTLE HOMEWORK, EASY TO BE DONE PLAYING WITH FRIENDS AND LOTS OF FUN, BEAUTIFUL TIME COMES ONCE IN A YEAR, SUMMER HOLIDAYS ARE BEST DAYS EVER!!

Subject enrichment Activity

Every student must undertake one project on Disaster Management

Objectives:

The main objectives of giving project work on Disaster Management to the students are to:

- To create awareness in them about different disasters, their consequences and management
- To prepare them in advance to face such situations
- To ensure their participation in disaster risk reduction plans
- To enable them to create awareness and preparedness among the community.
- The project work helps in enhancing the Life Skills of the students.
- Various forms of art must be integrated in the project work.

S.No.	Rubrics	Marks
A.	Content accuracy, Originality and collaborative skills	2
B.	Competencies exhibited and Presentation	2
C.	Viva	1

ART INTEGRATED ACTIVITY

Make a tabular chart on the basis of following parameters from chapters:

1. Natural vegetation and wildlife (Geography)
2. Forest society and colonialism (History)

Parameters:

- Types of forest
- Climate
- Vegetation
- Animals
- Area

Judgement criteria:

S.No.	Rubrics	Marks
A.	Creativity	2
B.	Collection of data	2
C.	Relevance	1

Competency based questions

Prepare 10 competency based questions from each of the following chapters:

1. French revolution (History)
2. India- Size and location (Geography)
3. People as resource (Economics)

Questions will be framed on the basis of different pedagogical strategies (MCQs, Blanks,, Cross-word Puzzle, Image based questions, Source based questions, Map based questions and Assertion- Reasoning)
