

DELHI PUBLIC SCHOOL ALIGARH
CLASS-XI
HOLIDAY HOME WORK-2024-25

ENGLISH:

ART-INTEGRATED

Around the World in 80 Days-

Read the novel "Around the World in 80 Days" by Jules Verne. Create a **Travel brochure** for a World Tour covering all different locations mentioned in the novel, with pictures and details. Mention the description of the places, and suggestions for travelers. Your description should be based on the perspective of Jean Passepartout or Phileas Fogg.

NEWSPAPER BASED

1. Use titles/ subtitles of the newspaper to cut and make your own poetry. You can cut words/ sentences/ phrases to create your rhythmic magic!

OR

2. Take any 2 Science or Current Affair articles mentioned in the newspaper. Make a pictorial representation / a 3 minutes short video discussing the articles / facts mentioned in the article. You can do some additional research on the topic to make your presentation / video unique and informative!

DIPASHA

We are back with our 2024 edition of DIPASHA, our annual school magazine. Draft a **writeup on the theme of Futuristic vision**- imagine the future by sharing your vision, predictions, and aspirations for technological advancement or invention of some gadget etc. Draft a thought-provoking article on topics related to innovation and progress in any one of these fields in future.

Type the write-up in Microsoft Word in Font style: Calibri and Font size: 12. Write your full name, class and Section at the end of your writing. Attach your colored passport size photograph in school uniform and mail it by June 20, 2024 at

arushi@dpsaligarh.org

PHYSICS:

☑ Students of class XI Science are directed to make report or file on the below topics and submit them positively in first week of July.

- Give a report on development of physics and its contribution towards society.
- Name, the discoveries or inventions of scientists who developed the concepts of physics and current research in Physics (like god/boson particle and gravitational waves etc)
- Prepare a file on mathematical tools (trigonometry, algebra, log, geometry, calculus) with historical facts like origin of trigonometry with Pythagoras theorem etc.
- Also revise the syllabus of Physics of class IX and X.

CHEMISTRY:

General Instructions:-

1. A copy of this assignment should be pasted in the classwork Copy.
2. All the questions should be solved in the copy.
3. Write all the formulae and significance of each term involved for chapter –Basic concepts of chemistry.

Also learn these chapters.

A) 1.A measured temperature on Fahrenheit scale is 200 OF. What will this reading be on Celsius scale ?

- (a) 400C (b) 940 C (c) 93.30C (d) 300C

2. The empirical formula and molecular mass of a compound are CH₂O and 180 gm respectively. What will be the molecular formula of compound?

- (a) C₉H₁₈ O₉ (b) CH₂O (c) C₆H₁₂O₆ (d) C₂H₄O₂

3. Which of the following term is unit less?

- (a) Molarity (b) Molality (c) Mole fraction (d) Normality

4. Which of the following methods of expressing concentration are independent of temperature?
 (a) Molarity (b) Molality (c) Mole fraction (d) Normality
5. AZT is used for victims for
 (a) Cancer (b) AIDS (c) Typhoid (d) Tuberculosis
6. Elements which possess characteristics of metals as well as non-metals are called
 (a) Gun metal (b) Metalloids (c) Meteoroids (d) Lanthanoids
7. A, E, M and n presents atomic weight , equivalent weight ,molecular weight and valency of an element .
 The correct relation is
 (a) $A = E \times n$ (b) $A = M/E$ (c) $A = M/n$ (d) $M = A \times n$
8. What is the mass percentage of carbon in carbondioxide ?
 (a) 0.034% (b) 27.27% (c) 3.4% (d) 28.7%
9. Two oxides of a metal contains 36.4% and 53.4% of oxygen by mass respectively. If the formula of first oxide is M_2O . Than the formula of second oxide is
 (a) M_2O_3 (b) MO (c) MO_2 (d) M_2O_5
10. The total number of electrons in 18 ml of water(density= 1g/ ml) is
 (a) 6.02×10^{23} (b) 6.02×10^{25} (c) 6.02×10^{24} (d) 6.02×10^{18}
11. The density of 2 molal solution of NaOH is 1.10 g per ml. Calculate the molarity of the solution.
12. A 6.9M solution of KOH in water contains 20% by weight of KOH. Calculate the density of solution.
13. Calculate the molality and molarity of 1 L solution of 93% H_2SO_4 (Wt. /Vol). The density of solution is 1.84g/ml .
14. Chlorophyll the green coloring matter of plants responsible for photosynthesis contains 2.68% of magnesium by weight. Calculate the number of magnesium atoms in 2.0 g of chlorophyll.
15. Calculate molality, Molarity and mole fraction of KI if the density of 20% aqueous KI solution is 1.202 g/ml

B).To inculcate scientific temperament and for understanding the conceptual knowledge of chemistry, students have to prepare a GLOSSARY OF CHEMISTRY. Add relevant pictures, diagrams and related to these discoveries. Use A-4 size sheets and write in neat handwriting. Glossary must comprise of 10 Chemistry terms (with their definitions) of each alphabet including Laws, formulas, principles and microscale chemistry apparatus.

MATHEMATICS:

Activity 1: Math Puzzle Creation

1. Create a Math Puzzle or Brain Teaser that involves concepts covered in class.
2. Write down the puzzle along with the solution and instructions for solving it.

Activity 2: Maths Movie Review

1. Watch a movie or documentary that involves mathematical concepts or a mathematician's life (e.g., "The Imitation Game", "Hidden Figures", "A Beautiful Mind").
2. Write movie review highlighting the mathematical aspects portrayed in the film.

Activity 3: Maths Power Point Presentation

1. Design a ppt on a specific topic from class XI Mathematics syllabus.
2. Present the topic in an engaging and interactive manner, explaining concepts, providing examples and solving problems.
3. Incorporate visuals, animations or props to enhance the presentation.
4. Mail your presentation to the following id's:

XI A : binodsharma@dpsaligarh.org

XI B : seema@dpsaligarh.org

Check your Progress:

Do the assignment shared on entab.

Note: Compile all your completed tasks into a creative portfolio (in your activity file), including photograph, report, presentation etc. Write a brief reflection on what you enjoyed most about the assignment and how it enhanced your understanding and appreciation of mathematics.

BIOLOGY:

- Q.1 Prepare an investigatory project on biomolecules.
- Q.2 Prepare a detailed study of cell and cell organelles. Give well labeled and detailed diagrams of all organelles.
- Q.3 Prepare your practical file theory of the mentioned practicals.
- Q.4 Prepare a chart of cell cycle and cell division (Diagrammatic representation of mitosis and meiosis).

ACCOUNTANCY:

PRODUCTIVE ZONE

- Identify the new business Ventures in India.
- Identify and explain the Accounting Standards under which the accounts of the particular business will be recorded.
- Research about the procedures which will be followed for the same and the list of various organizations which are involved in the process.
- Make a business plan and type of market you are targeting.
- Use Blue/Black ball pen
- No colour pens are allowed on the projects
- Project is supposed to be completed on A4 sheets
- The work should be done neatly in a presentable manner

DISTINCTIVE KNOWLEDGE ZONE

1. What is meant by Accounting?
2. Explain any three features of Accounting.
3. Explain the objectives of accounting.
5. Explain any three advantages of Accounting.
6. Explain the limitations of accounting.
7. Explain any three qualitative characteristics of accounting

Answers are supposed to be done in the Accountancy notebook.

BUSINESS STUDIES:

Students are required to submit the Data Analysis and interpretation on any one of the project given below:

- I. Project One: Field Visit
- II. Project Two: Case Study on a Product
- III. Project Three: Aids to Trade
- IV. Project Four: Import /Export Procedure
- V. Project Five: A visit to any State Emporium (other than your school state).

NOTE: The project work had already been discussed in the class and the detailed guidelines are uploaded on Entab as well as on the class Whatsapp Group.

ECONOMICS:

1-What are different types of economic systems found, briefly state their major characteristics. Give a few examples.

Which system did India follow and why?

2-Draw production possibility schedule and curves in the following cases, When marginal opportunity cost (i) rises (ii) falls (iii) remains constant

3-Draw PPC in the following cases and state the reason:

- (i) Immediate impact of demonetization, 2016 on the level of output
- (ii) Beti Bachao Beti Padhao scheme
- (iii) Damage of crop in Kerala due to cyclone

- (iv) A lot of factories in Uttarakhand suffered a physical loss due to severe earthquake
- (v) Improvement in the technology applied in the production of good X
- (vi) Use of outdated technology in the production of good Y

HISTORY:

1. Analyze and interpret the meaning of three unseen passages each from the following chapters of history text book: -

- (A) Writing and the city life.**
- (B) Roman Empire.**

NOTE: - Write the question answer related with the passage in your school note book.

2. Collect information about any one monument of Medieval world and write its brief history related to it.

GEOGRAPHY:

1- What important cultural features do you observe while going to school? Are they similar or dissimilar? Should they be included in the study of geography or not? If yes, why?

2- Bring about the basic difference between the drift theory and Plate tectonics.

Answers are supposed to be done in the geography notebook.

PROJECT

3- Make a project on disaster management.

- Every student has to compulsorily undertake any ONE project out of the given topics from disaster management.
- Choose any one natural disaster to which India is vulnerable to e.g., earthquakes, cyclones, landslides, floods, tsunamis, droughts etc.
- Prepare a detailed project under the following heads:
- Introduction
- Meaning of disaster, hazard, the difference between hazard & disaster, disaster management, causes and consequences of disaster and mitigation measures of the disaster chosen by you.
- Define the role of citizens, NGOs, and government agencies during disasters.
- Discuss the importance of remote sensing and GIS techniques in disaster management.
- Conclusion
- Your project should be supported by suitable photographs and paper cuttings of the affected area.
- Students need to prepare their project on A-4 size papers, which should be handwritten.
- The project should consist of maximum of 7 pages.
- (Cover Page: Title /Topic, Name of the Student, Class, Section, Roll Number, Session, and School Name) should be mentioned in the project.

POLITICAL SCIENCE:

1. Analyze and interpret the meaning of cartoons/pictures displayed in the following chapters of Political Science text book: -

- (A) Constitution, how and why.**
- (B) Rights in the Indian constitution.**

NOTE: Write the question answer related with the cartoons/pictures in your school note book.

2. (A) Explain the Directive Principles of state policy. Write about their relationship with Fundamental rights.
- (B) Write a note elaborately on Fundamental duties.

3. **ACTIVITY: -**

Find out about the Articles, Parts, and Schedules of the Indian constitution

- (A) At the time of independence**
- (B) In today's scenario**

NOTE: - Write answer related to activity in your class note book of Political Science.

PHYSICAL EDUCATION: (In Practical File)

Practical -1: Labeled diagram of 400 mtrs track & field with measurement.

Practical-2: Describe changing trends in Sports & Games in terms of changes in playing surface, wearable gears, equipment, technological advancements.
Practical-3: Draw the Labeled diagram of cricket play field, mention its history, any five equipment, any five rules, five terminology & five skills.

COMPUTER SCIENCE:

PRACTICAL FILE

(Write the given programs on an interleave file and attach the output of each question on the left hand side page.)

1. Create a panda's series from a dictionary of values and a ndarray
2. Given a Series, print all the elements that are above the 75th percentile.
3. Create a Data Frame quarterly sales where each row contains the item category, item name, and expenditure. Group the rows by the category and print the total expenditure per category.
4. Create a data frame for examination result and display row labels, column labels data types of each column and the dimensions
5. Filter out rows based on different criteria such as duplicate rows.
6. Importing and exporting data between pandas and CSV file
7. Prepare the school result data, analyzes the performance of the students on different parameters, e.g subject wise or class wise.
8. For the Data frames created above, analyze, and plot appropriate charts with title and legend.
9. Take data of your interest from an open source (e.g. data.gov.in), aggregate and summarize it. Then plot it using different plotting functions of the Matplotlib library.
10. Create a student table with the student id, name, and marks as attributes where the student id is the primary key.
11. Insert the details of a new student in the above table.
12. Delete the details of a student in the above table.
13. Use the select command to get the details of the students with marks more than 80.
14. Find the min, max, sum, and average of the marks in a student marks table.
15. Find the total number of customers from each country in the table (customer ID, customer Name, country) using group by.
16. Write a SQL query to order the (student ID, marks) table in descending order of the marks.

INFORMATICS PRACTICES:

Prepare a **practical file** with a minimum of 14 python programs on an interleave file and attach the output of each question on the left hand side page.

List of suggested programs are given below:

1. To find average and grade for given marks.
2. To find sale price of an item with given cost and discount (%).
3. To calculate perimeter/circumference and area of shapes such as triangle, rectangle, square and circle.
4. To calculate Simple and Compound interest.
5. To calculate profit-loss for given Cost and Sell Price.
6. To calculate EMI for Amount, Period and Interest.
7. To calculate tax - GST / Income Tax.
8. To find the largest and smallest numbers in a list.
9. To find the third largest/smallest number in a list.
10. To find the sum of squares of the first 100 natural numbers.
11. To print the first 'n' multiples of given number.
12. Create a dictionary to store names of states and their capitals.
13. Create a dictionary of students to store names and marks obtained in 5 subjects.
14. To print the highest and lowest values in the dictionary.

ENTREPRENEURSHIP:

Creative Zone

1. Prepare a collage on the following topics

(i) Indian MNC's and their CEO's with their Brand name, Brand Mark and Taglines.

(ii) Non Indian MNC's and their CEO's with their Brand name, Brand Mark and Taglines.

OR

1. List 10 people from whom you buy any product or service, for example, newspaper vendor, milk vendor, a grocer etc. Who do you think is an entrepreneur, if not, why?

2. Collect articles about entrepreneurs from newspapers and magazines. Read the article and answer the

following questions

(i) How did the person get the ideas for the venture?

(ii) What is the unique selling point of the good or service?

(iii) What risk did the person take?

DANCE:

1) Prepare a project on introduction of Indian Dance.

2) Short notes on myths related to Kaliya Daman, Dasharatar, Vastra haran, the concept of Nataraja, Makhan chor.

PAINTING:

During the summer break, you will have the opportunity to work on your artistic skills!

*Your holiday homework for art is as follows:

*Still Life Drawings: Prepare two colourful still life drawings in your art file. You can use any objects around you, such as fruits, flowers, or household items.

*Nature Drawings: Create two drawings inspired by nature. These can include landscapes, seascapes, or any natural scenes you find interesting.

*Compositions: Design and complete two compositions in your art file.

*Make sure to express your creativity and take your time to work on these pieces. You can use any medium you prefer (e.g., pencils, paints, pastels) for your drawings and compositions.

*Have a wonderful holiday, and we look forward to seeing your artwork when we return!
