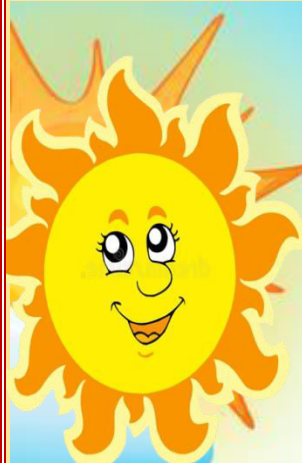


D.A.V. PUBLIC SCHOOL, RATIA
SUMMER VACATION HOME ASSIGNMENT
SESSION 2023-2024
CLASS :XI SCIENCE



**WISHING ALL A HAPPY,
ENJOYABLE & SAFE
SUMMER VACATION!**



Dear Parents and Students,

Summer vacation is around the corner, bringing with itself a much-needed respite from hectic school days. We hope that you will thoroughly enjoy the vacations and make the most of this summer. While it is indeed important that you relax and refresh yourselves, it is also important that you exercise your minds.

Keeping this in mind, we have designed various exciting activities to keep the students engaged and active during the summer vacation. These fun projects/ assignments would enhance learning skills, help understand concepts better, and make for a great crash course aimed at improving academic output.

These activities will not only help you to revise what was taught, but will also enrich your knowledge. These projects will be assessed as Subject Enrichment Activity, Portfolio or Art Integrated activity.

We encourage parents to motivate and support the students to ensure that given work is completed in time, to the best of their ability. Your support and encouragement both have a huge impact on your child's learning ability.



Let's do it regularly this Summer Vacation!

**GO FOR A MORNING WALK REGULARLY !
FOLLOW THE PRACTICE OF " EARLY TO BED
& EARLY TO RISE" !**

RESPECT YOUR ELDERS!

**EAT HEALTHY DIET. EAT LOTS OF FRESH
FRUITS , GREEN VEGETABLES AND SALADS.**

SAY NO TO JUNK FOOD.

**DRINK LOTS OF FLUIDS(WATER , JUICE ,
LEMONADE ETC.)**

**PREPARE A TIME TABLE FOR YOURSELF
AND FOLLOW IT .**

AVOID USAGE OF MOBILE PHONES !

**ACT RESPONSIBLY BY DOING YOUR WORK
OF YOUR OWN LIKE DOING YOUR LITTLE
CHORES YOURSELF , CLEANING YOUR
WARDROBE , SETTING YOR BOOKSHELF
ETC.**

**READ REGULARLY AS BOOKS ARE YOUR
BEST FRIENDS !**

**BE ECO FRIENDLY AND SAVE WATER , FUEL
AND ELECTRICITY!**

CONVERSE IN ENGLISH WITH EVERYONE

ENGLISH CORE

1. Research on the Egyptians civilizations –with particular reference to Tut’s Mummy and its discovery. (4-5 assignment pages) Roll No-1-10

Stick pictures.

2. Research on Khushwant singh’s life and works. Find out about the role of Khushwant singh’s father in building Delhi.(4-5 assignment pages)

Roll No-11-20

3. Research on sailing terminology and parts of a boat and gather information about Isle Amsterdam. (4-5 assignment pages) Roll No-21-30

4. Research on anyone of Manipur tribes –Find out about its origin, culture, lifestyle etc.(4-5 assignment pages) Roll No-31 onwards

*Design a poster as an appeal for conserving water as most parts of India are facing serious problems and have been hit by drought.

5. Cut out 5 clippings of Classified Ads under the heads and paste them in your fair notebook.

☐ For sale

☐ To-let

☐ Situation vacant

☐ For matrimonial

☐ Pets / kennels

6. Read the passage for comprehension and write the question and answer in fair notebook.(passages will be sent through WhatsApp)

Revision Work-

Revise the following Chapters and Poems.

- 1. The Portrait of a Lady (Prose)
- A Photograph (Poem)
- “We’re Not Afraid to Die... if we can be together Discovering Tut: the Saga Continues
- The Laburnum Top (Poem)

Snapshot Book

- The Summer of the Beautiful White Horse (Prose)
- The Address (Prose)

PHYSICS

1. Solve the given assignment. (Based on Chapters Motion in a straight line and motion in a plane)

2. Learn NCERT questions answer based on above chapters.

3. Write the following experiments in your lab manual (AARTI PUBLICATION).

1. To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume.
2. To measure diameter of a given wire and thickness of a given sheet using screw gauge

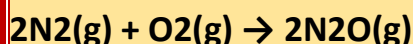
3. To determine volume of an irregular lamina using screw gauge.
4. To determine radius of curvature of a given spherical surface by a spherometer

CHEMISTRY

1. Solve the given assignment.
2. Learn NCERT question answers of chapter 1,2 and 3
3. Prepare a booklet of formulas used in chapter 1 and 2.

Assignment

- Q1. What will be the mass of one atom of C-12 in ggram.
- Q2. How many significant figures should be present in the following numbers: 0.005 ,5.00 ,0.508
- Q3. What is the symbol for SI unit of mole? How is the mole defined?
- Q4. What is the difference between molality and molarity?
- Q5. Calculate the mass percent of calcium, phosphorus and oxygen in calcium phosphate $\text{Ca}_3(\text{PO}_4)_2$
- Q6. 45.4 L of dinitrogen reacted with 22.7 L of dioxygen and 45.4 L of nitrous oxide was formed. The reaction is given below:



Which law is being obeyed in this experiment? Write the statement of the law?

Q7. If two elements can combine to form more than one compound, the masses of one element that combine with a fixed mass of the other element, are in a whole-number ratio. Is this statement true?

If yes, according to which law?

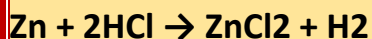
Give one example related to this law

Q8. Calculate the average atomic mass of hydrogen using the following data:

Isotope	% Natural abundance	Molar mass
1H	99.985	1
2H	0.015	2

Q9. Hydrogen gas is prepared in the laboratory by reacting dilute HCl with granulated zinc.

Following reaction takes place.



Calculate the volume of hydrogen gas liberated at STP when 32.65 g of zinc reacts with HCl. 1 mol of a gas occupies 22.7 L volume at STP; atomic mass of Zn = 65.3 u.

Q10. The density of the 3 molal solution of NaOH is 1.110 g mL⁻¹. Calculate the molarity of the solution.

Q11. Volume of a solution changes with change in temperature, then, will the molality solution be affected by temperature? Give reason for your answer.

Q12. If 4 g of NaOH dissolves in 36 g of H₂O, calculate the mole fraction of each component in the solution. Also, determine the molarity of solution (specific gravity of solution is 1 g ml⁻¹)

Q13. A vessel contains 1.6 g of dioxygen at STP (273.15K, 1 atm pressure). The gas is now transferred to another vessel at a constant temperature, where pressure becomes half of the original pressure. Calculate

(i) volume of the new vessel.

(ii) number of molecules of dioxygen.

Q14. Calcium carbonate reacts with aqueous HCl to give CaCl₂ and CO₂ according to the reaction given below:



What mass of CaCl₂ will be formed when 250 mL of 0.76 M HCl reacts with 1000 g of CaCO₃? Name the limiting reagent. Calculate the number of moles of CaCl₂ formed in the reaction.

Q15. Define the law of multiple proportions. Explain it with two examples. How does this law point to the existence of atoms?

Q 16. A box contains some identical red coloured balls, labelled as A, each weighing 2 grams. Another box contains identical blue coloured balls, labelled as B, each weighing 5 grams. Consider the combinations AB, AB₂, A₂B and A₂B₃, and show that a law of multiple proportions is applicable.

Explain why the electron gain enthalpy of fluorine is less negative than that of chlorine.

17. All transition elements are d-block elements, but all d-block elements are not transition elements. Explain.

18. Identify the group and valency of the element having atomic number 119. Also, predict the outermost electronic configuration and write the general formula of its oxide.

19. Among the elements B, Al, C and Si,

(i) which element has the highest first ionisation enthalpy?

(ii) which element has the most metallic character?

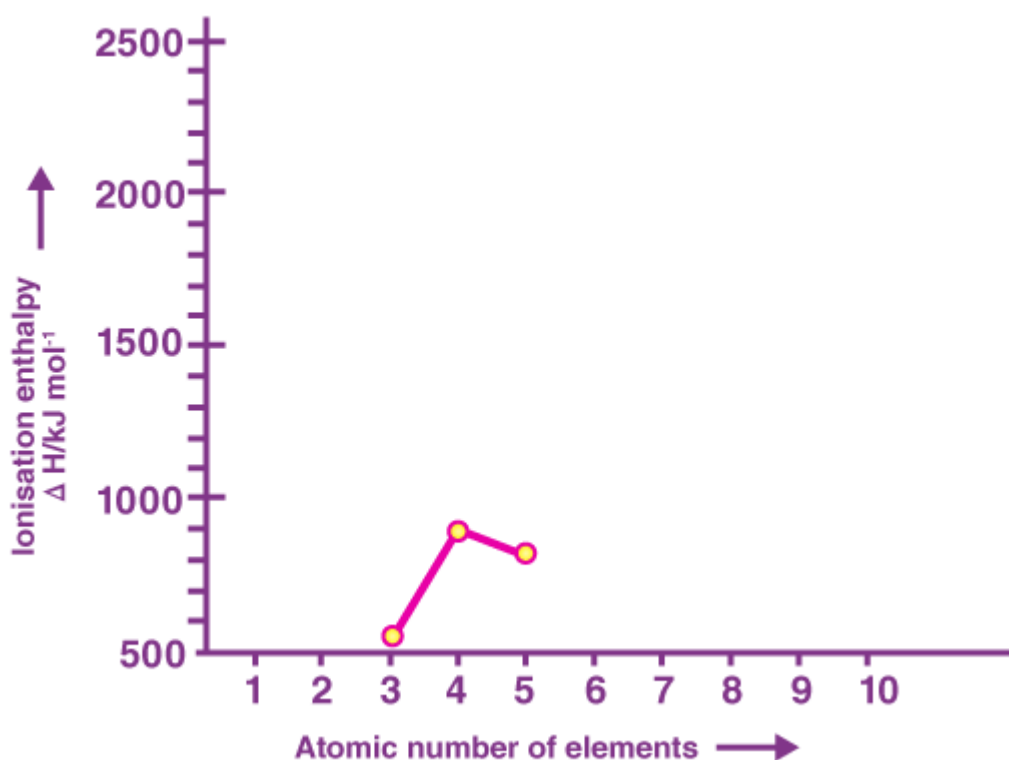
Justify your answer in each case

20. Ionisation enthalpies of elements of second period are given below :

Ionisation enthalpy/ kcal mol⁻¹ : 520, 899, 801, 1086, 1402, 1314, 1681, 2080.

Match the correct enthalpy with the elements and complete the graph given in Fig. 3.1.

Also, write symbols of elements with their atomic number.



MATHEMATICS

1 Chapter one -Sets from NCERT Exemplar

2 Chapter 1 from the assignments given

BIOLOGY

1. Read & Learn

Chapter 1: The Living World

Chapter 2: Biological classification

Chapter 3: Plant Kingdom

Chapter 4: Animal Kingdom

2. Learn NCERT questions of Chapter 1 to 4

3. Do experiments in lab manual-

Exp.1- To study osmosis by potato osmometer/ osmoscope.

Exp.2- To study distribution of stomata on upper and lower surfaces of a leaf.

Exp.3- To compare the rate of transpiration from the upper and lower surfaces of a leaf by using cobalt chloride paper method.

Exp.4- To study the plant pigments by paper chromatography.

Exp.5- To study the rate of respiration in germinating seeds.

1. Solve the assignment sent with Homework.

Assignment

Q1. Sexual reproduction is by copulation of male and female followed by embryological development is characteristic feature of

(a) Animalia (b) Fungi (c) Mucor (d) Plantae

Q2. The blue-green algae are also referred as

(a) Cyanobacteria (b) Eubacteria (c) Archaeobacteria (d) Heterotrophic bacteria

Q3. The organism that completely lack a cell wall and are smallest living cell known, can survive without oxygen is

(a) Bacteriophages (b) Yeast (c) Mycoplasma (d) Virus

Q4. Which one of the following is true for fungi?

(A) They are phagotrophs (b) They lack a rigid cell wall

(C) They are heterotrophs (d) They lack nuclear membrane

Q5. Which Archaeobacteria is present in the guts of ruminant animals such as cows and buffaloes?

(a) Speculums (B) Methanogens (c) Heterogens (d) Holophiles

Q6. Which of the following is an exception of monera kingdom –

(a) Bacteria (b) Virus (c) Cyanobacteria (d) Mycoplasma

Q7. A plant that has seeds but no flowers and fruits?

(a) Bryophytes (b) Gymnosperms (c) Mosses (d) Pteridophytes

Q8. Most primitive vascular plants?

(a) Mosses (b) Cycads (c) Kelps (d) Ferns

Q9. Plants that possess spores and embryo but lack vascular tissues and seeds?

(a) Rhodophyta (b) Bryophyta (c) Pteridophyta (d) Phaeophyta

Q10. Pteridophytes differ from mosses in

(a) Independent gametophyte (b) Dependent gametophyte

(c) Flagellate antherozoids (d) Independent and dominant sporophyte

Q11. What are male and female sex organs in Bryophytes called as?

Q12. Why are bryophytes considered amphibians of the plant kingdom?

Q13. What is the importance of Algae?

Q14. How is gametophyte a dominant phase in the life cycle of bryophytes?

Q15. What is bioluminescence? Give an example.

Q16. Mention two similarities between Aves and Mammals.

Q17. Name the classes of vertebrates with two, three and four-chambered hearts.

Q18. Differentiate between open and closed circulatory system?

Q19. Explain different types of phyllotaxy with suitable examples.

Q20. Describe the modifications of the stem. Give examples for the same.

Q21. Name the floral parts of an angiosperm. Also, mention their arrangements.

Q22. What are Adventitious roots?

Q23. What is Venation?

Q24. What advantages does the five-kingdom classification have over the two-kingdom classification?

Q25. What is the nature of the cell wall in diatoms?

Q26. What is the difference between a virus and a viroid?

MUSIC

Complete file work -All topic Attempt in assignment sheet and learn all topics

topic-स्वर, थाट, सपत्क

ताल -तीनताल

थाट

श्रुति, रागोंकीजातियां

PHYSICAL EDUCATION

Revise Unit 1st and 2nd

Complete notebook of Unit 1st and 2nd