

SUMMER HOLIDAY HOMEWORK CLASS X 2023-24

ENGLISH

Students will prepare Portfolio of English.

1. Biography of Robert Frost.
2. Critical Analysis of the Poem, 'How to Tell Wild Animals'. (With poet's biography)
3. 'The Thief's Story'

Read this chapter carefully. Think and write another ending of this story in your own words.

4. Write a poem or an article by yourself about 'Animals'. You can express their innocence, love, plight, human impact and their responsibilities etc through your creative words.

Students will solve the given activities in their worksheets

1. Factual and Discursive Passages (Pg.no 5 to 14)
2. Formal letter (Pg.no. 26-28)
3. Analytical Paragraph (37,39,41)
4. Grammar (Pg.no. 51,52,58,59,63,64,65,66)

HINDI

--वन्यजीव संरक्षण--

मनुष्य अपने स्वार्थ के कारण जंगलों को काटकर नई मानव बस्तियाँ और फैक्ट्रियाँ लगा रहा है फलस्वरूप आज जंगल सीमित होते जा रहे हैं वन्यजीवों से उनका घर छीन रहा है आज वो शहरों तक पहुँच गए हैं। अतः मनुष्य की गलतियों एवं स्वार्थ के कारण वन्यजीवों का अस्तित्व खतरे में पड़ गया है। वन्यजीवों के अस्तित्व को बचाने से संबंधित नीचे दी गई विधाओं में से किसी एक विधा में चित्र सहित परियोजनाकार्य (फाइलमें) करें----कहानी/आलेख/कविता अथवा पाँच स्लोगन।

SANSKRIT

1. समास का सुंदर चार्ट बनाइये
2. पर्यावरण के विषय में चित्र लगा कर दस वाक्य लिखे (संस्कृतमें)
3. स्वयं का संस्कृत में परिचय लिखिए (चित्रसहित)

FRENCH

File work

1. Make “la brochure touristique “ of Rajasthan and Nagaland
2. Make mind map of “le futur simple” and “le future anterieur“ on A4 size sheet

Copy work

1. Nathalie veut inviter son amie Sandrine pour son anniversaire. Rédigez un message d’invitation à Sandrine de la part de Nathalie. (writing copy)
2. Do Q16a) of page 69 (posez la question) of Together with French in grammar copy

MATHEMATICS

A) Do In Mathematics Lab Manual: -

Activity no. 2: To make a graphical exploration of the zeros of a quadratic polynomial.

Activity no. 3: Given a system of simultaneous linear equations

($a_1X+b_1Y+c_1 = 0$; $a_2X+b_2Y+c_2=0$), such that $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$, to demonstrate graphically that such a system is inconsistent.

Activity no. 17: To derive a section formula.

B) Worksheet to be done Do in your mathematics notebook

Q.1 Find the largest number that will divide 398, 436 and 542 leaving remainders 7, 11, and 15 respectively.

Q.2 Express 98 as a product of its primes.

Q.3 If the HCF of 408 and 1032 is expressible in the form $1032 \times 2 + 408 \times p$, then find the value of p.

Q.4 Prove that $\sqrt{5}$ is an irrational number and then Prove that $2 + 3\sqrt{5}$ is also an irrational number.

Q.5 If the sum of zeroes of the quadratic polynomial $3x^2 - kx + 6$ is 3, then find the value of k.

Q.6 If α and β are the zeroes of a polynomial such that $\alpha + \beta = -6$ and $\alpha\beta = 5$, then find the polynomial.

Q.7 Find a quadratic polynomial, whose zeroes are -4 and -5.

Q.8 Find the zeroes of the quadratic polynomial $3x^2 - 75$ and verify the relationship between the zeroes and the coefficients.

Q.9 If α and β are the zeroes of the polynomial $6y^2 - 7y + 2$, find a quadratic polynomial whose zeroes are $1/\alpha$ and $1/\beta$.

Q.10 For what value of k, the pair of equations $4x - 3y = 9$, $2x + ky = 11$ has no solution?

Q.11 Find whether the following pair of linear equations is consistent or inconsistent:

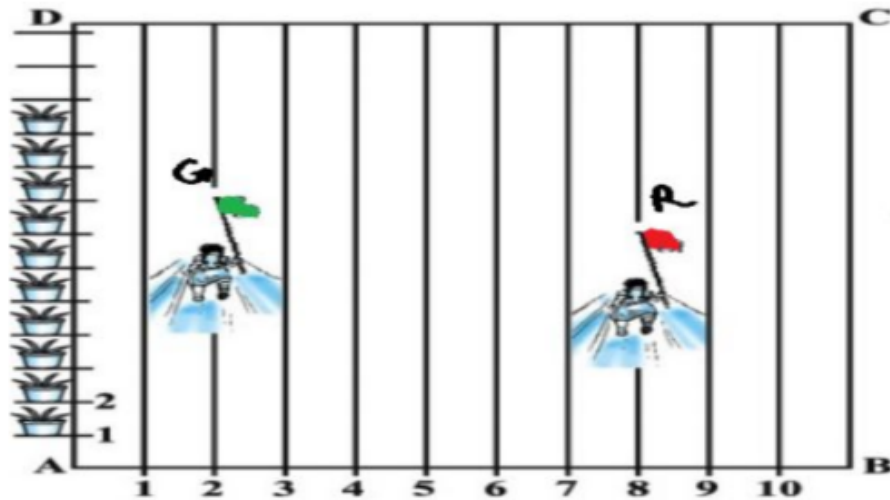
$$3x + 2y = 8 \quad 6x - 4y = 9.$$

Q.12 The sum of the digits of a two digit number is 8 and the difference between the number and that formed by reversing the digits is 18. Find the number. Solve by elimination method.

Q.13 The age of the father is twice the sum of the ages of his 2 children. After 20 years, his age will be equal to the sum of the ages of his children. Find the age of the father. Solve by substitution method.

Q.14 Case study question

DEFENCE Affiliated to CBSE PUBLIC SCHOOL



1. Find the position of green flag

- a) (2,25) c) (25,2)
b) (2,0.25) d) (0, -25)

2. Find the position of red flag

- a) (8,0) c) (8,20)
b) (20,8) d) (8,0.2)

3. What is the distance between both the flags?

- a) $\sqrt{41}$ c) $\sqrt{61}$
b) $\sqrt{11}$ d) $\sqrt{51}$

4. If Rashmi has to post a blue flag exactly halfway between the line segment joining the two flags, where should she post her flag?

- a) (5, 22.5) c) (2,8.5)
b) (10,22) d) (2.5,20)

5. If Joy has to post a flag at one-fourth distance from green flag, in the line segment joining the green and red flags, then where should he post his flag?

- a) (3.5,24) c) (2.25,8.5)
b) (0.5,12.5) d) (25,20)

SCIENCE

CHEMISTRY

- Q (1) A chemical reaction is said to be balanced when the number of atoms of each element is equal in the reactants and products (MCQ) (a) TRUE (b) FALSE
- Q (2) Balance the chemical equation $\text{CaO(s)} + \text{SiO}_2\text{(s)} \rightarrow \text{CaSiO}_3\text{(s)}$ (MCQ)
(a) Already balanced (b) Cannot be balanced
- Q (3) Write the balanced chemical equations for the following reaction: Sodium carbonate on reaction with hydrochloric acid in equal molar concentrations gives sodium chloride and sodium hydrogencarbonate.
- Q (4) Write the balanced chemical equation if the reaction occurs when a piece of aluminium metal is added to dilute hydrochloric acid.
- Q (5) Balanced Chemical Equation follows which law? (a) Law of conservation of energy (b) law of conservation of mass (c) law of conservation of momentum (d) none
- Q (6) Write the balanced chemical equations for the reaction: Thermit reaction, iron (III) oxide reacts with aluminium and gives molten iron and aluminium oxide.
- Q (7) Describe an activity to demonstrate the change that takes place when white silver chloride is kept in sunlight. State the type of chemical reaction which takes place.
- Q (8) Name the products formed on strongly heating ferrous sulphate crystals. What type of chemical reaction occurs in this change?
- Q (9) Write any two observations in an activity which may suggest that a chemical reaction has taken place. Give an example in support of your answer. Answer. Any two of these observations will suggest chemical reaction has taken place. (i) Change in state. (ii) Change in colour. (iii) Evolution of gas. (iv) Change in temperature.
- Q (10) Decomposition reactions require energy either in the form of heat or light or electricity for breaking down the reactants. Write one equation each for decomposition reactions where energy is supplied in the form of heat, light and electricity.
- Q (11) Take 3 g of barium hydroxide in a test tube, now add about 2 g of ammonium chloride and mix the contents with the help of a glass rod. Now touch the test tube from outside. (i) What do you feel on touching the test tube? (ii) State the inference about the type of reaction occurred. (iii) Write the balanced chemical equation of the reaction involved.
- Q (12) (a) A solution of potassium chloride when mixed with silver nitrate solution, an insoluble white substance is formed. Write the chemical reaction involved and also mention the type of the chemical reaction.
(b) Ferrous sulphate when heated, decomposes with the evolution of a gas having a characteristic odour of burning sulphur. Write the chemical reaction involved and identify the type of reaction.
- Q (13) What is a reduction reaction? Identify the substances that are oxidised and the substances that are reduced in the following reactions. (a) $\text{Fe}_2\text{O}_3 + 2\text{Al} \rightarrow \text{Al}_2\text{O}_3 + 2\text{Fe}$ (b) $2\text{PbO} + \text{C} \rightarrow 2\text{Pb} + \text{CO}_2$
- Q (14) (a) Can a displacement reaction be a redox reaction? Explain with the help of an example.
(b) Write the type of chemical reaction in the following: (i) Reaction between an acid and a base (ii) Rusting of iron.
(c) (i) Neutralisation reaction (ii) Oxidation reaction.
- Q (15) Mention the type of chemical reaction that takes place when: (Board Term I, 2013) (i) a magnesium ribbon is burnt in air. (ii) limestone is heated. (iii) silver bromide is exposed to sunlight. (iv) electricity is passed through acidified water. (v) ammonia and hydrogen chloride are mixed with each other. Write the chemical equation for each reaction.

BIOLOGY (Life processes) worksheet:

1. Why do aquatic animals breathe at a faster rate than terrestrial animals?
2. Lungs always contain a residual volume of air?
3. How are lungs designed in Human Body to maximize the area for exchange of gases?
4. How excretion occurs in plants?
5. Describe the role of following in digestion.
 - a) Bile
 - b) Salivary amylase
 - c) HCl
6. Describe the processes of urine formation in the kidneys.
7. Describe double circulation in human beings. Why is it necessary?
8. Why is diffusion insufficient to meet the oxygen requirements of multi-cellular organisms like humans?
9. What are the different ways in which glucose is oxidized to provide energy in various organisms?
10. List the three events that occur during the process of photosynthesis. Explain the role of stomata in this process.

Project work

Heart attack, and other have remained a major concern around the world, but it is only recently that a rising number cardiovascular problems among the younger population are being diagnosed and reported. While doctors and medical professionals are yet to find conclusive answers to such occurrences, they have somehow decoded a few factors that could be leading to it.

Keeping this in mind, collect the information from media, newspaper, magazines, etc. and answer the following questions and attach this information in your project file. You can support your answer with pictures/graphs if required.

1. What is Heart attack?
2. What are the factors which lead to heart attack in youngsters?
3. List out the symptoms and cause of sudden cardiac arrest.
4. How can you prevent a severe heart attack?
5. What is the emergency tablet for heart attack in India? And how they are effective?

PHYSICS

Draw all the ray diagrams of formation of images using concave mirror, convex mirror, convex lens and concave lens.

1. Why do we prefer a convex mirror as a rear-view mirror in vehicles?
2. A ray of light travelling in air enters obliquely into water. Does the light ray bend towards the normal or away from the normal? Why?
3. Light enters from air to glass having refractive index 1.50. What is the speed of light in the glass? The speed of light in vacuum is $3 \times 10^8 \text{ ms}^{-1}$.
4. You are given kerosene, turpentine and water. In which of these does the light travel fastest? Use the information given in Table 10.3.
5. Draw a schematic representation of different types of mirrors.

6. Define:
 - (a) Reflection of light
 - (b) Beam of light
7. Define light and write its properties.
8. Write four difference between real and virtual image.
9. An object of height 6 cm is placed perpendicular to the principal axis of a concave lens of focal length 5 cm. Use lens formula to determine the position, size and nature of the image if the distance of the object from the lens is 10 cm.
10. Define refractive index and relative refractive index.
11. The absolute refractive indices of glass and water are 43 and 32 respectively. If the speed of light in glass is $2 \times 10^8 \text{ ms}^{-1}$, calculate the speed of light in (i) vacuum and (ii) water.
12. Define power of a lens. What is its unit? One student uses a lens of focal length 50 cm and another of -50 cm. What is the nature of the lens and its power used by each of them?

SOCIAL SCIENCE

Design a project report on the topic SUSTAINABLE DEVELOPMENT

1. **The topic should contain following points:**
 - What is sustainable development?
 - How sustainable development is important?
 - Steps taken in world for sustainable development (Earth Summit)
 - Steps taken in India for sustainable development with pictures.
 - Suggest some measures for sustainable development
2. **Find out following current details in terms of India:**
 - Literacy rate
 - Life expectancy rate
 - IMR
 - Per capita income
 - GDP
 - GNP
3. **Locate types of soil in India on political map.**

ART INTEGRATED PROJECT

Art-integration is a cross-curricular pedagogical approach that utilizes various aspects and forms of art and culture as the basis for learning of concepts across subjects. As a part of the thrust on experiential learning, art-integrated education will be embedded in classroom transactions not only for creating joyful classrooms, but also for imbibing the Indian ethos through integration of Indian art and culture in the teaching and learning process at every level. This art-integrated approach will strengthen the linkages between education and culture.”

Under this project *Ek Bharat Shrestha Bharat* Programme of Government of India has paired State/UT, for Rajasthan is Nagaland. Groups have been already allotted to the students. Do a comparative study and adorn your file with beautiful handmade or print outs and research over the given topic.

INFORMATION TECNOLOGY

Q1. Create a template of Resume using open office writer.



Format the template, refer to the example given below.

Q2. Prepare a tutorial on open office writer document of “how to solve a Sudoku (4*4)”.

Write the steps/rules along with relevant tables (for each step).

Do the formatting as required.

Refer to one rule given below:

Rule: In a 4x4 Sudoku puzzle, answer every square with a whole number between 1 and 4. Examine the "clues" (or, the numbers provided by the puzzle). The clues will also always be a whole number between 1 and 4.

3	2	1	4
4	1		3
2			
1	4	3	