Bishop Scott Girls' School

(Affiliated to CBSE, New Delhi Upto 10+2)

Jaganpura, Brahmpura, By- Pass, Patna-27

Session: 2022 – 23

Summer Vacation

Holiday Homework

Class – X

Note – Dear Parents and students, date of submission for holiday homework & assignments will be on the reopening day itself, i.e. on 20th June 2022 (Monday).

English

1	Do units 1to 4 & 7 to 11 given in English workbook, Words & Expression
2	Underline all the hard words of the chapters(Term-1)givenin English Literature books, First Flight & Footprints and write their relevant meanings neatlyin pencil.
3	Design an attractive portfolio of 15 pages on different topics.
4	Read all the chapters enlisted in Term-I thoroughly.

Hindi

Topic Number	**(हिन्दी साहित्य)**
1	" सूरदास के पद " का भावार्थ लिखें तथा स्मरण करें।
2	तुलसीदास के "राम लक्ष्मण परशुराम संवाद " का भावार्थ लिखना तथा स्मरण करना है।
3	"नेताजी का चश्मा " पाठ का सार संक्षेप लिखे तथा स्मरण करें।
4	" बालगोबिन भगत" पाठ का सार संक्षेप लिखें तथा स्मरण करें।
	(व्याकरण खंड)
1	20 मिश्र वाक्य लिखकर उनमें से आश्रित उपवाक्य छांटकर कर उनके भेद भी लिखिए तथा 10 वाक्यों को सरल वाक्य में बदले।
2	20 सरल वाक्य लिखकर उन्हें मिश्र वाक्य में बदले।
3	20 संयुक्त वाक्य लिखकर उन्हें सरल वाक्य में बदले।
4	20 _20 कर्तृवाच्य, कर्म वाच्य और भाव वाच्य वाले वाक्य लिखिए।
5	किसी भी संदर्भ में हिंदी में 10 ईमेल तैयार करें ।
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	पोर्टफोलियो
1	"नेताजी का चश्मा" पाठ् से सरकंडे का एक चश्मा बनाकर अपनी उत्तर पुस्तिका में चिपकाए तथा उसके संदर्भ में कम से कम 10 वाक्य लिखें।
2	सूरदास का एक सुंदर चित्र बनाकर उनके पसंदीदा पदों में से किन्ही दो पदों को लिखिए।
3	बिना ईमानदारी और साहस के आत्मकथा नहीं लिखी जा सकती। गांधीजी की आत्मकथा "सत्य के प्रयोग" पुस्तक पढ़कर उनमें से अपनी पसंदीदा दो पृष्ठ लिखिए।
4	तुलसीदास का एक सुंदर चित्र बनाकर उनके दो दोहों को लिखे, जो आपकी पुस्तक में नहीं है।
5	"यह दंतुरित मुस्कान" कविता से एक चित्र बनाइए तथा आप जब भी किसी बच्चे से पहली बार मिले तो उसके हाव-भाव, व्यवहार आदि को सूक्ष्मता से देखिए और उस अनुभव को कविता या अनुच्छेद के रूप में लिखिए।
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Mathematics

	Sec A Solve the following questions:
1	Solve for x and y by using substitution method: $2x - y = 6$, $x - y = 2$
2	Solve for x and y by using elimination method: $a(x+y) + b(x-y) = a^2 - ab + b^2$, $a(x+y) - b(x-y) = a^2 + ab + b^2$
3	Solve the system of equations by using elimination method: $x + 2y + 1 = 0$, $2x - 3y - 12 = 0$
4	Solve for x and y by using substitution method: $ax + by = a^2$, $bx + ay = b^2$
5	Solve the system of equations by using elimination method: $a^2x + b^2y = c^2$, $b^2x + a^2y = d^2$
6	Solve for x and y by using elimination method: $\frac{5}{x+y} + \frac{2}{x-y} = -1$, $\frac{15}{x+y} - \frac{7}{x-y} = 10$
7	Points A and B are 70 km apart, a car starts from A and another car starts from B simultaneously. If they travel in the same direction, they meet in 7hrs, but if they travel towards each other, they meet in 1hr. Find the speed of two cars.
8	Solve for x and y: $\frac{x}{a} + \frac{y}{b} = 2$, $ax - by = a^2 - b^2$
9	Find the value of k for which the following system of equations has unique solution: $x + 2y = 3$, $5x + ky + 7 = 0$.
10	Find the value of k for which the following system of equations has infinite solution: $Kx + 3y = 2k + 1$, $2(k+1)x + 9y = 7k + 1$
	Sec B (Portfolio)
11	Write the polynomial, explain its degree and represent the zero of various polynomials graphically.
12	Describe similar figures with examples. Write all condition/criteria for two triangles to be similar and explain with figures.
	Sec C (Lab Manual)
13	To verify the conditions for consistency of a system of linear equations in two variables by graphical representation.
14	To make a mathematical instrument 'clinometer' to measure the height of a distant object.

15	To find the centroid of a triangle using paper cutting and folding activity.
16	To verify the basic proportionality theorem for a triangle.
	Sec D (R.S Aggarwal)
17	Do Ex. 3A, 3D & 3E.

Physics

1	List four characteristics of the images formed by plane mirrors.
2	Draw a ray diagram to show the path of the reflected ray corresponding to an incident ray which is directed parallel to the principal axis of a convex mirror. Mark on it the angle of incident and the angle of reflection
3	A spherical mirror produces an image of magnification -1 on a screen placed at a distance of 50 cm from the mirror.
	(a) Write the type of mirror.
	(b) Find the distance of the image from the object.
	(c) What is the focal length of the mirror?
	(d) Draw the ray diagram to show the image formation in this case.
4	State the laws of refraction of light. If the speed of light in vacuum is $3X10^8$ ms^{-1}, find the speed of light in a medium of absolute refractive index 1.5.
5	Which phenomenon is responsible for making the path of light visible?
6	What happens when we place a glass prism in the path of a narrow beam of white light?
7	What happens when a second identical prism is placed in an inverted position with respect to the first prism? Draw a labelled ray diagram to illustrate it.
8	The power of the lens is -4.0D. What is the nature of this lens?
9	Which type of mirror is used to give erect and enlarged image of an object?
10	Draw the ray diagram and also state the position, the relative size and the nature of image formed by a concave mirror when the object is placed at the centre of curvature of the mirror.

Chemistry

A) Write the answers to the below questions in Chemistry Copy.

1) Name the gas evolved when zinc reacts with dil. HCl.

2) What is a chemical equation?

3) On what chemical law, balancing of chemical equation is based?

4) Represent decomposition of ferrous sulphate with the help of balanced chemical equation.

5) When carbon dioxide is passed through lime water, it turns milky, why?

6) A zinc rod is left for nearly 20 minutes in a copper sulphate solution. What change would you observe in zinc rod?

7) Identify the compound oxidized in the following reaction- H_2S (g) + $C\ell_2 \rightarrow$ 2 $HC\ell$ + S.

8) An iron knife kept dipped in a blue copper sulphate solution turns the blue solution light green. Why?

9) A copper coin is kept in a solution of silver nitrate for some time. What will happen to the coin and the colour of the solution?

10) What do you understand by precipitation reaction? Explain with suitable examples.

11) What is lime-water test for the detection of carbon dioxide?

12) Why cannot a chemical change be normally reversed?

13) Why is it always essential to balance a chemical equation?

14) What happens when CO_2 gas is passed through lime water and why does it disappear on passing excess CO_2?

15) You are given the following materials (a) marble chips (b) dilute hydrochloric acid (c) Zinc granules. Identify the type of reaction when marble chips and Zinc granules are added separately to acid taken in two test tubes.

16) The gases hydrogen & chlorine do not react with each other even if kept together for a long time. However, in the presence of sunlight, they readily combine. What does actually happen?

17) A,B and C are three elements which undergo chemical reactions in the following way

$A_2O_3 + 2\ B \rightarrow B_2O_3 + 2\ A$

$3\ CSO_4 + 2\ B \rightarrow B_2(SO_4)_3 + 3\ C$

$3\ CO + 2\ A \rightarrow A_2O_3 + 3\ C$

Answer the following -

a) Which element is most reactive?

b) Which element is least reactive?

18) A water insoluble substance 'X' on reacting with dilute H_2SO_4 released a colourless and odourless gas accompanied by brisk effervescence. When the gas was passed through water, the solution obtained turn blue litmus red. On bubbling the gas through lime water, it initially became milky and the milkiness disappeared when the gas was passed in excess. Identify the substance 'X' and write the chemical equations of the reaction involved.

19) Ahmad took a magnesium ribbon (cleaned) and burned it on a flame. The white powder formed was taken in a test tube and water was added to it. He then tested the solution formed with red and blue litmus paper. What change was seen? Why?

20) Give one example of a combination reaction in which an element combines with a compound to give you a new compound.

<u>Portfolio</u>

B) Classify the substances used in your daily life as acidic and basic substances. Identify 10 such substances
of both the categories. Also paste their photographs.

Also discover the acid or the base present in these substances responsible for their nature.

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Biology

01. What is the role of saliva in digestion of food?
02. How are the alveoli designed to maximize the exchange of gases?
03. How are water and minerals transported in plants?
04. Why is diffusion insufficient to meet the oxygen requirements of multicellular organisms like humans?
05. What processes would you consider essential for maintaining life?
06. How is small intestine designed to absorb digested food?
07. What are the necessary conditions for autotrophic nutrition and what are its byproducts?
08. Why does a piece of bread start tasting sweeter after it is chewed for sometimes?

09. Food does not pass through the digestive system by gravity. This is clear from the fact that we can digest food even if we are lying down. Explain the logic behind the passage of food through our digestive system.

10. How does most carbon dioxide reach the photosynthetic cells of a green leaf?

11. Name the two molecules produced by the digestion of starch and fat respectively.

12. Stomata of a desert plants remain closed during the day .Explain how and when they take up carbon dioxide to perform photosynthesis?

13. Where does aerobic respiration occur ? How many molecules of ATP are released during it?

14. Diffusion pressure cannot deliver oxygen all over the body in bigger animal .Comment on this statement.

15. Why do we need a proper transportation system in plants?

16. Why is it necessary to separate oxygenated and deoxygenated blood in mammals and birds?

17. How are water and minerals transported in plants?

18. What would be the consequence of deficiency of hemoglobin in our bodies?

19. What is difference between reflex action and walking?

20. Draw the structure of neuron and explain its function

Class: **X**
Subject: Social Science. Portfolio

Topic Number	**Topic Assigned**
1	**a)** List different types of soils found in India and the areas where they are found . Give three ma features of each type of soil. **b)** Draw a well labelled diagram of Soil Profile.
2	**a)** On the outline map of India locate and label the following dams : i) Hirakund dam ii)Tungabhadra dam iii)Bhakra Nangal dam iv) Salal dam v) Tehri dam vi)Sardar Sarovar dam
3	**a)** Sharing of power makes people more powerful . Give reasons. **b)** State one prudential reason and one moral reason for power sharing with an example from Indian context.
4	**a)** Create a flow chart of panchayati raj and different levels of rural administration.
5	'While average income is useful for comparison, but it may hide disparities'. Discuss.
6	**a)** Write a short note on UNDP. **b)** Trace the history of World Bank.

Class: X **Subject:** Social Science

Project: Prepare a project on one of the following topics/units:

Every student has to compulsorily undertake any one project on the following topics:

- **Consumer Awareness(Consumer Awareness: need and present scenario)**

OR

- **Social Issues (Corruption: A menace to the society)**

OR

- **Sustainable Development(A Study on Scope of Rainwater Harvesting in India)**

Guidelines:

1. **Consumer Awareness(Consumer Awareness: need and present scenario)**

Key Points:

- Introduction
- Example of Consumer Exploitation in the marketplace and need of Consumer Awareness
- Consumer Movement
- COPRA(1986)
- Consumer Rights
- Quasi Judicial Machinery for Consumer dispute redressal
- Flow Chart explaining consumer redressal process
- Role of Consumer Forums and Consumer Protection Councils
- Challenges to Consumer dispute redressal
- Consumer Awareness Campaigns
- Digital technology and Digital India initiative to boost consumer awareness
- How far have we achieved consumer satisfaction?
- Conclusion

2. **Social Issues (Corruption: A menace to the society)**

Key Points:

- Introduction
- About Corruption
- Types of Corruption
- Causes of Corruption
- Major areas of concern
- Top 5 corruption scams in India
- Cures for corruption in India
- Digital transactions to control corruption
- Corruption in Covid Management

- Suggestions
- Conclusion
- Resources

3. Sustainable Development(A Study on Rainwater Harvesting in India)

Key points

- Introduction
- The need for Rainwater Harvesting
- Historical growth of the Rainwater Harvesting in India
- India's potential in Rainwater Harvesting in India
- Present status
- Rainwater Harvesting development in different states of India
- Challenges and Constraints
- Conclusion
- References

Instructions:

- Prepare your project in Scrapbook.
- Word Limit: 1000
- The Project Should be handwritten and plagiarism free.
- It should be neatly designed and illustrative.
- Include Pictures
- The Project should include:
    - ★ On the first page. Project Title, Name, Roll number, Section
    - ★ Index
    - ★ Certificate
    - ★ Acknowledgement,
    - ★ Objective
    - ★ Introduction
    - ★ Explanation (based on suggested key points)
    - ★ Summary/Conclusion
    - ★ At the end Resources/Bibliography should be mentioned.

Computer

1.	Make abanner on types of Operating systemand take its printout.
2.	Make a pamphlet on Stress Management techniques and take its printout.
3.	Write a short note on the followings in separate A4 sheets. i. File management system ii. Elements of communication cycle iii. Mobile operating system iv. Classification of Operating system. v. Different types of communication.