

**MOUNT COLUMBUS SCHOOL
DAKSHINPURI, NEW DELHI-62**

SUMMER VACATION HOLIDAY HOMEWORK(2020-21)

CLASS X

Dear Parents,

In Mt. Columbus School children are sharpened and enhanced to become competent and adaptable. As it is evident that the current pandemic has proved to be a hindrance into normal schooling experience, yet this has proven to be a blessing in disguise. Not only the students have mastered self-studying but have explored new avenues of learning. Students have enjoyed studying on the digital platform with distinctive rise of e-learning and now we begin with our Summer Vacation.

This is time to channelize the energy of our learners towards creative endeavours, to work on their weak links(subjects) and to polish themselves. Where the outside world seems to build a standstill ,it is a rare opportunity to strengthen familial bond and utilise the time along with. Possibilities are endless though try-

- ✓ To enhance good reading habit.
- ✓ To hone their scientific temperament.
- ✓ To participate in household chores (fireless cooking), practice gardening , spend quality time with elderly of family.
- ✓ To control screen time: Do not let kids spend too much time with mobile or PC.
- ✓ To inspire , encourage because within each one lives a dancer, singer, artist or a chef.
- ✓ To let them explore their inner qualities...Columbians are special!

Please find attached some engaging holiday activities which the children are suppose to do during the break.

Please guide your children to do their work neatly and on time.

STAY HOME. STAY SAFE. WISHING EVERYONE GOOD HEALTH AND HAPPINESS.

- ✓ Holiday Homework is provided in two parts Worksheet and Art Integrated.
Both the parts are mandatory.
- ✓ CBSE has mandated class IX and X students to take up art integrated project work(integrating Arts as primary pathways of learning).
- ✓ Present your work neatly and precisely.
- ✓ Work shall be handwritten (both Worksheet and Projects).
- ✓ Use waste and left out material preferably to decorate your project work and activity files.
- ✓ Read the Art Integrated activities carefully, your content should be on point, creative and presentable.

INTERDISCIPLINARY PROJECT

TOPIC – EK BHARAT SHRESHTHA BHARAT

The diversity in India is unique. Being a large country with large population. India presents endless varieties of physical features and cultural patterns. In short, India is “the epitome of the world”. The vast population is composed of people having diverse creeds, customs and colours and it is imperative to maintain and strengthen the bond between the people of our country. It is only through the initiatives like EK BHARAT SHRESHTHA BHARAT that the people can understand and appreciate this glorious manifestation of diverse culture.

ENGLISH

Link Lesson – Poem –How to tell wild animals

Task – Create a jigsaw puzzle of 15-20 pieces on the topic ‘Wild Animals’. Your puzzle should include the pictures of wild animals of Sikkim.

You may refer to the following link on how to make jigsaw puzzles:

https://www.youtube.com/watch?time_continue=22&v=AmRBW17Do48&feature=emb_logo

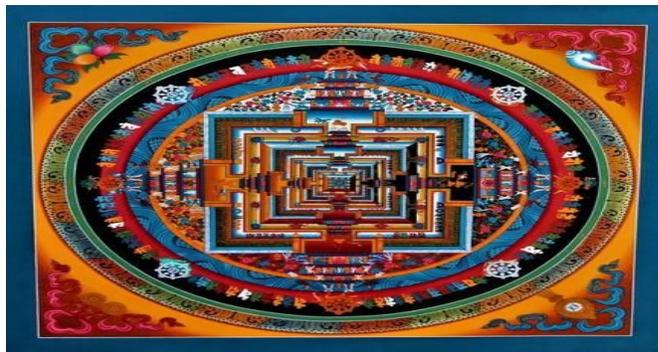
हिन्दी

‘डायरी का एक पन्ना’ पाठ में मोनुमेंट के नीचे झंडा फहराने की बात की गई है; दिल्ली और सिक्किम में स्थित प्रमुख मोनुमेंट कौन से हैं, चित्रसहित सूची बनाएँ।

MATHEMATICS

- Study the art and culture of Delhi and Sikkim. For example, Study the Buddhist art form "Thangka"(Sikkim) which is influenced from the mathematical concepts like symmetry, geometry and other architectural techniques on it. List 5 mathematical techniques used in this art form (both Delhi and Sikkim). Draw or paste the picture of it.

An example is given below.



SCIENCE

Link Lesson – Electricity

Task- Invest your creative buds and give a coloured stroke on a paper to elaborate the various sources of energy in the beautiful state of Sikkim by drawing an energy tree where each branch of the tree shows light on evolution of various technologies/ techniques adopted by Sikkim to meet its energy demand.



SOCIAL SCIENCE

PROJECT- WORK

Prepare a report on the forest and wildlife of India with reference to Delhi and Sikkim.

The existence of flora and fauna plays a vital role in the ecological balance of the area.

The report should be presented in the following order:

1. Cover page showing project title, student information, school and session.
2. List of content with page numbers.
3. Acknowledgements
4. Project overview: Purpose, Aim & Methodology.
5. Conclusion
6. Bibliography.

Note:

- a. **Body contents include-** 1. The physiographic features, 2. The varieties in flora and fauna, 3. The extinct species 4. The government plans for conservation, 5. The historical background in the field of tourism related to the growth of the place and 6. 1 or 2 case study.(with reference to Delhi and Sikkim).
- b. **Collect relevant information, facts, pictures and figures to prepare the project.**
- c. **All the photographs and sketches should be labeled.**
- d. **The total length of the project report should be not more than 10-15 pages of A4 size sheet.**
- e. **It should be handwritten and credit will be awarded to use of maps, graphs, articles of newspapers and magazines, good layout, cost effective and creative use of materials.**

WORKSHEETS ENGLISH

1. Prepare a Wikipedia of Mr. Nelson Mandela. (on A4 size sheet)
2. Read any one novel written by 'Ruskin Bond' and write its summary and characters. (on A4 size sheet)
3. On the basis of your reading 'The Diary of a Young Girl', prepare the character sketch of Anne Frank and Margot Frank (in notebook)
4. You are Radha/Rahul, member of NGO AWAAZ. Write a letter to the editor of a national daily for a public movement to clean the Yamuna river. (You must introduce yourself, describe how the people are to be blamed for polluting the river and suggest the need for installing water treatment plant to clean the river). (in notebook)
5. Write the moral messages in your notebook you have learnt from all the chapters and poems completed till now. (not more than 5 sentences)
6. Prepare a speech of about 2-3 minutes on any one of the following topic and record it in your own voice in any form –CD/Pendrive. Your speech should include your name, class, roll no. and school's name.
(Assessment of Speaking Skills)
 - a. Swadeshi movement back in India
 - b. Life after the Covid – 19 pandemic
 - c. Online classes – advantages/disadvantages

हिन्दी

निर्देश:-

सम्पूर्ण कार्य हिन्दी उत्तर पुस्तिका में करें।

निम्नलिखित प्रश्नों के उत्तर दें-

1. हरिहर काका के साथ जैसा दुर्व्यवहार हुआ, वर्तमान परिवेश में ऐसी घटनाएँ अधिकांशतः देखी जा सकती हैं; परिवार के सदस्य के साथ ऐसा दुर्व्यवहार होने के कारणों पर अपने विचार प्रस्तुत करें।
2. 'बड़े भाई साहब' पाठ के आधार पर शिक्षा का महत्व बताते हुए छोटे भाई को पत्र लिखें ?
3. छोटे भाई ने टाइम टेबल बनाते समय क्या क्या सोचा और फिर उसका पालन क्यों नहीं कर पाया ?
4. धर्मतल्ले के मोड़ पर आकर जुलूस क्यों टूट गया ?
5. दीपक दिखाई देने पर अँधियारा कैसे मिट जाता है साखी के संदर्भ में स्पष्ट कीजिए ?
6. मीराबाई श्याम की चाकरी क्यों करना चाहती हैं ?
7. हरिहर काका को जबरन उठाकर ले जाने वाले लोग कौन थे और उन्होंने हरिहर काका के साथ कैसा व्यवहार किया?
8. बड़े भाई साहब छोटे भाई को क्या सलाह देते थे ?
9. अपने स्वभाव को निर्मल रखने के लिए कबीर ने क्या उपाय सुझाया है ?
10. किन बातों से पता चलता है कि बड़े भाई साहब के अंदर भी छोटा बच्चा छिपा है ?

गतिविधि-

1. 'डायरी का एक पन्ना' पाठ में वर्णित मोनुमेंट के नीचे झंडा फहराने के दृश्य को चित्र बनाकर प्रस्तुत करें।
2. 'मीरा के पद' पाठ की व्याख्या करते हुए ऑडियो रिकॉर्ड करें।
3. कबीर के दोहों का गायन करते हुए ऑडियो रिकॉर्ड करें।

MATHEMATICS

1. A number when divided by 73 gives 34 as quotient and 23 as remainder. Find the number.
 2. Using Euclid's division lemma, show that the square of any positive integer is either of the form $3m$ or $(3m+1)$ for some integer.
 3. If n is an odd integer then show that $n^2 - 1$ is divisible by 8.
 4. Find the HCF and LCM of 108, 120 and 252 using prime factorization method.
 5. Six bells commence tolling together and toll at intervals of 2, 4, 6, 8, 10, 12 minutes respectively. In 30 hours, how many times do they toll together?
 6. Show that $7\sqrt{5}$ is an irrational.
 7. Find the zeros of $x^2 - 3$ and verify the relationship between the zeros and coefficients.
 8. If α and β are the zeros of the polynomial $2x^2 + 7x + 5$, write the value of $\alpha + \beta + \alpha\beta$.
 9. Solve each of the following system of equations graphically: $2x - 3y + 13 = 0$ and $3x + 2y - 2 = 0$.
 10. Solve for x and y : $\frac{5}{x-1} + \frac{1}{y-1} = 2$, $\frac{6}{x-1} - \frac{3}{y-2} = 1$.
 11. Find the value of k for which the given system of equation has infinitely many Solutions: $kx + 3y = k - 3$, $12x + ky = k$.
 12. Five years ago, A was thrice as old as B and ten years later A shall be twice as old as B what are the present ages of A and B?
 13. A boat goes 16 km upstream and 24 km downstream in 6 hours also, it covers 12 km upstream and 36 km downstream in the same time. Find the speed of the boat in still water and that of the stream.
 14. The difference of two numbers is 4 and the difference of their reciprocal is $\frac{4}{21}$. Find the numbers.
 15. Solve for x and y : $\frac{5}{x-1} - \frac{1}{y-2} = 2$, $\frac{6}{x-1} + \frac{3}{y-2} = 1$.
- (Do HHW in Math notebook & Do practice of Ch-1, 2, 3 and 4 in other rough notebook)**

SCIENCE

Answer the following questions in notebook.

BIOLOGY

- Q1. What is the difference between breathing and respiration? (3 points)
- Q2. Write the role of the following in human body.
 - a. Valves of heart
 - b. Nephron
 - c. Villi of small intestine
 - d. Alveoli
- Q3. List two functions performed by hydrochloric acid in our stomach.
- Q4. Name any two types of tropic movements in plants.
- Q5. Name the sensory receptors found in nose, eyes, ear and tongue.

CHEMISTRY

- Q6. A student prepares aqueous solution of the following salts: ferrous sulphate, Sodium Sulphate, barium chloride. Write the colour of each solution thus formed.
- Q7. State the kind of chemical reactions in the following examples in term of loss and gain of energy:
 - a. Digestion of food in stomach
 - b. Combustion of coal in air
 - c. Heating of limestone
- Q8. You have four solutions A, B, C and D. The pH of solution A is 6, B is 9, C is 12 and D is 7.

- a. Identify the most acidic and most basic solution.
 - b. Arrange the above four solutions in the increasing order of hydrogen ion concentration.
- Q9. What is the change in pH value of milk when it changes into curd? Explain.
- Q10. Classify the following as acidic oxides and basic oxides: Sodium oxide, Sulphur Dioxide, Magnesium oxide and Calcium oxide.

PHYSICS

- Q11. What is the maximum resistance which can be made using five resistors each of $1/5\Omega$?
- Q12. Write the factors, the resistance of a wire depends upon.
- Q13. Why does ammeter have low resistance? Give reasons.
- Q14. A student find that there are 20 divisions between 0 mark and 1 V mark of a voltmeter.
Find the least count of this voltmeter.
- Q15. What happens to the resistance as the conductor is made thicker?
- Q16. Nichrome is used to make the element of electric heater. Why?

SOCIAL SCIENCE

Answer the following questions.

1. Name the country which follows 'coming together' style of federalism.
2. Name the country which follows 'holding together' style of federalism.
3. Which subjects are included in the Union List?
4. Which subjects are included in the State List?
5. Which subjects are included in the Concurrent List?
6. What is power sharing?
7. Why power sharing is important in a democracy?
8. Why is horizontal distribution of power often referred to as a system of "checks and balances"?
9. Which factor is responsible for increasing the feeling of alienation among the Sri Lankan Tamils?
10. How can power be shared among governments at different levels?
11. Which are the two main cropping seasons in India? Mention their growing and harvesting periods.
12. What are the technological and institutional reforms made in the field of agriculture in India?
13. What is primitive subsistence farming?
14. What is intensive subsistence farming?
15. What are the main types of soil found in India? Which type of soil is the most widespread and important soil of India?
16. What is Agenda 21?
17. Why is it essential to have resource planning?
18. 'Land is a natural resource of utmost importance'. Justify the statement.
19. What is meant by the term resource?
20. What is resource planning?
21. What was the main aim of the French Revolutionaries?
22. Who founded the secret society, 'Young Italy' during the 1830s?
23. Who remarked "When France sneezes, the rest of Europe catches cold"?
24. What were Jacobin clubs?
25. Explain the reforms introduced by Napoleon in the territories he conquered.
26. Give any two common developmental goals of the people.
27. State any two goals of development other than income.
28. Define average income.

29. Mention any one limitation of per capita income as an indicator of development.
30. "People have conflicting development goals". Support the statement with examples.

(Note: The question-answers to be done on A4 size sheet)

INFORMATION TECHNOLOGY

1. What are the components of a communication cycle?
2. Explain environment-based communication barriers with two examples.
3. What do you mean by 7Cs of effective communication?
4. How can you keep your message concise?
5. What are the eight parts of speech?
6. What are the parts of sentence? Explain briefly with example.
7. How can you apply page numbering to the pages of a document?
8. Compare formulas and functions.
9. How would you insert a clip art image in PowerPoint slide?
10. What is the meaning of slide layout and how do you choose it?
11. How does Writer implement the cropping operation for an image?
12. What are the steps to create a template category?

(Note:- Write answers in IT notebook)

Practical work:-

1. Create a document with a large number of headings and sub texts.
2. Enter the marks of four students over five tests. Tabulate the average marks for each student. Finally, sort the list of students based on the final average marks.
3. Open the Word application. Enter any one paragraph on the topic & quot; The negatives of Computer & quot; After typing, password protects the document using the method shown. Now open the document and add page numbering to the document.
4. Create a new presentation for any topic. Add some text in a normal font. Change the font of the text and increase the font size. Add a picture to the slide from the images present in the computer.
5. Open the presentation software. Create two slides on the topic & quot; The need for ethics & quot;. Use bulleted lists to put forth your points. Add slide transitions. Animate the list items of the slide(s) using Animations tab of the software.

(Note:-Save all the practical work in Pen drive/CD with name, class & roll no.)

WORK EDUCATION

1. Design a Book Cover (Story Book)
2. Prepare a Beautiful Handmade Card (Own Choice)
3. Prepare Advertisement Design on Amul Products, For example. Ice cream, Milk, Butter (Any 1)
4. Motifs Design (Draw and fill colours)
5. Make a Brochure on Tourism
6. Letterhead Design of any Company or Institution (Any 1)

COMPLETE YOUR ART WORK WHICH WE HAVE COVERED DURING ONLINE ART CLASSES.

PHYSICAL EDUCATION - Complete the HPE file

YOGA – Complete the file work