

HOME ASSIGNMENT
GRADE – 10

The lockdown of 21 days has ushered in a golden opportunity for you as a learner to expand your horizon sitting back in your comfort zone with endless access to internet. Children, it would be quite interesting if you add flavor of academics in your daily routine. It will help you remain in touch with your studies and spend your time in quite recreational manner.

Instructions are separately given along with the home assignment subject wise

ENGLISH

1. Read the first speech of the first Prime Minister of India “ Tryst with Destiny “ and the first speech of Nelson Mandela after he became the first Prime Minister of Free South Africa. Find out the similarities between both the speeches and write a note in 100 words about their vision of the nation on A4 sheet.
2. Did you ever have any fear in your life? Write about that fear , how it affected your life, what attempts you did to overcome that fear in about 120 words in three paragraphs .
3. The whole nation and its citizens are witnessing unprecedented time. The threat of COVID-19 has affected all the lives – from a commoner to a billionaire. Amidst this crisis people have found innovative ways to spend their time during lockdown of 21 days. What do you do to spend your time, write a paragraph on your practices during the self isolation.
4. Write any two stories in 200-250 words based on the given prompts in the grammar notebook:
 - (a) There is a hole in the sky where the moon used to be
 - (b) I woke up to hear knocking on the glass. At first I thought it was the window until I heard it come from the mirror again.....
 - (c) “I can’t marry her. She would kill me within a week.”
 - (d) She asked why I was breathing so heavily. I wasn’t.....
 - (e) Mr. Thomas was a wealthy business man. One day he was alone sitting at his dining table when
5. Colors are the essence of life .There are many idioms in English which have colours name in them for instance – Green Thumb means a person fond of gardening , Golden opportunity means a good chance. Find out ten such interesting idioms with their meanings and use them in sentences of your own.
6. “A reader lives a thousand lives before he dies.” Here is a list of some classic novels for you to read and enrich yourself. You can read them in summary form on internet .
 - The Tempest by William Shakespeare
 - David Copperfield by Charles Dickens
 - Wuthering Heights by Emily Bronte
 - Tess of the D’Urbervilles by Thomas Hardy
 - Silas Marner by George EliotOnce you read them , write a short note on the novel you liked most and on the character that you found interesting stating the reason for your liking in about 100 words.

Note-All the work should be done meticulously in a separate file or thin notebook .

हिंदी परियोजना कार्य

व्याकरण-

1. शब्द किसे कहते हैं? उदा० देकर शब्द और पद में अंतर स्पष्ट कीजिए।

2. शब्द की कोई दो विशेषताएँ लिखिए।

3. ईश्वर प्रकृति का ही एक रूप है। (रेखांकित पद है या शब्द)

4. क. 'विद्यालय' पद है या शब्द?

ख. छात्रों को अवकाश अच्छा लगता है। (रेखांकित पद है या शब्द)

वाक्य रूपांतरण -

1. बच्चे नाश्ता करके विद्यालय गए। (संयुक्त वाक्य)

2. प्रथम आने वाला पुरस्कार पाएगा। (मिश्र वाक्य)

3. नारायण धनी है परंतु कंजूस है। (सरल वाक्य)

4. वर्षा हुई और पक्षी चहचहाने लगे। (मिश्र वाक्य)

5. मैं पुस्तकालय जाकर विज्ञान की पुस्तकें पढ़ता हूँ। (मिश्र वाक्य)

6. मैंने एक आदमी देखा जो बीमार था। (वाक्य का प्रकार बताइए)

7. वे लोग आज भाम की ट्रेन से आए और शाम को चले गए। (मिश्र वाक्य)

8. वह फल खरीदने बाजार गया। वहाँ से फल लेकर आ गया। (संयुक्त वाक्य)

9. लिखकर अभ्यास करने से कुछ भूल नहीं सकते। (मिश्र वाक्य)

10. चाय पीने की यह एक विधि है। जापानी में उसे चा-नो-यू कहते हैं। (मिश्र वाक्य)

11. जब असफल हो गए तो शो करना व्यर्थ है। (वाक्य का प्रकार बताइए)

12. वह बाजार जाकर संतरे लाया। (वाक्य का प्रकार बताइए)

13. मैं जानता हूँ कि तुम मना नहीं करोगे। (वाक्य का प्रकार बताइए)

14. वहाँ जाकर जल्दी आ जाना। (वाक्य का प्रकार बताइए)

15. जब बारिश हो रही थी, मैं पढ़ रहा था। (वाक्य का प्रकार बताइए)

16. घर जाओ और गृहकार्य पूरा करो।

समास - समास के भेदों को रचनात्मक रूप से अपने पोर्ट फोलियो में लगाने हेतु बनाएँ। सभी छह समास के भेदों के अलग-अलग कार्ड बनाकर उनकी एक एलबम बनाएँ।

1. समस्तपद बनाकर समास का नाम लिखिए -

घन के समान श्याम , सुंदर है जो वन , कमल के समान नयन , चंद्रमा की कला , नीला है जो नभ , नया है जो युवक , ध्यान में मग्न , धन और दौलत , राष्ट्र की संपत्ति , नया है जो आभूषण , गगन में विचरण करने वाला , पानी की चक्की , महान है जो पुरुष , अनुभव से सिद्ध।

2. समास विग्रह कर बनाकर समास का नाम लिखिए -

पाठशाला , छात्रावास , वृद्धाश्रम , जिलाधीश , रेखांकित , यथाविवेक , ऋणमुक्त , चंद्रखिलौना , दहेज-प्रथा , महात्मा , नीलकमल , घुड़साल , चंद्रमुख , पुष्पमाला , दिनोदिन , यथायोग्य। इनके अतिरिक्त आप और भी समास विग्रह कर सकते हैं।

अशुद्धि शोधन -

1. क्या आप खाना खाए हैं ?

2. आप मेरा साथ चलो।

3. ईद के दिन अनेकों लोगों ने नमाज़ पढ़ी।

4. अपने को तुम्हारी बात अच्छी नहीं लगी।

5. राष्ट्रपिता का देश सदा आभारी रहेगा।
6. तुम सपरिवार सहित आना।
7. हमारा उद्देश्य सफलता प्राप्ति होनी चाहिए।
8. तुम जैसा करोगे वैसा भरोगे।
9. वह ने खाना खा लिया।
10. एक फूलों की माला लाओ।
11. कुछ जगहों में अशुद्धियाँ पड़ी हैं।
12. मेले में बच्चा खो गई।
13. यह लोग कहाँ के रहने वाले हैं?
14. शिक्षक ने उसकी खूब प्रशंसा करी।
15. हम यहाँ सकशलतापूर्वक हैं।
16. आज लगभग कोई एक दर्जन छात्र नहीं आए हैं।
17. कृपया आज का अवकाश देने की कृपा करें।
18. मोहन ने घर गया और सो गया।
19. मोहन ने सोया।
20. प्रधानाचार्य छात्र को बुलाए।
21. वह अनुत्तीर्ण होकर परीक्ष में फेल हो गया।
22. बलिदानियों का देश सदा आभारी रहेगा।

मुहावरे –

वाक्य में निम्न मुहावरों का इस प्रकार प्रयोग कीजिए कि उनका अर्थ स्पष्ट हो जाए। इन मुहावरों को रचनात्मक रूप से अपने पोर्ट फोलियो में लगाने हेतु बनाएँ।

1. अपना चल्तू सीधा करना।
2. प्राण जाहिं पर वचन न जाई।
3. तलवे चाटना।
4. नाच न जाने आँगन टेढ़ा
5. मन चंगा तो कटौती में गंगा।
6. पानी-पानी होना।
7. नमक हलाल होना।
8. चार दिन की चाँदनी फिर अँधेरी रात।
9. बाएँ हाथ का खेल होना।
10. नमक मिर्च लगाना।
11. छक्के छुड़ाना।
12. आँखें खुल जाना।
13. नाकों चने चबाना।
14. बाल-बाल बचना।
15. मुठभेड़ होना।
16. एक-एक शब्द को चाट जाना।
17. प्राण सूखना।
18. बूते से बाहर होना।
19. घाव पर नमक छिड़कना
21. कमर कसना
22. गागर में सागर भरना
23. अक्ल के घोड़े दौड़ाना
24. भीगी बिल्ली बनना
25. आँख दिखाना
26. ईट से ईट बजाना
27. पलकें बिछाना
28. रात-दिन एक करना
29. नंगी तबवा
30. घाव हरे करना

MATHEMATICS

Q.1. Use Euclid's Division Lemma to show that the cube of any positive integer is of the form $9m$, $9m + 1$ or $9m + 8$, for some integer q

Q.2 What is the largest number that divides 626, 3127 and 15628 and leaves remainders of 1, 2 and 3 respectively.

Q.3 In a morning walk three persons step off together, their steps measure 80 cm, 85 cm and 90 cm respectively. What is the minimum distance each should walk so that they can cover the distance in complete steps ?

Q.4 Draw the graph of following : (i) $y = 0$, (ii) $y - 2 = 0$, (iii) $2y + 4 = 0$

Q.5 Six years hence a man's age will be three times the age of his son and three years ago he was nine times as old as his son. Find their present ages

Q.6 Find the remainder when $f(x) = x^3 - 6x^2 + 2x - 4$ is divided by $g(x) = 1 - 2x$.

Q.7 The sum of the square of two positive integers is 208. If the square of the larger number is 18 times the smaller number, find the numbers

Q.8 What should come in the place of ? in the following number series .

11 28 55 92 139 ?

Q.9 Solve $2 + \frac{1}{1 + \frac{1}{2 + \frac{2}{3}}}$

Q.10 How many balls, each of radius 1 cm, can be made from a solid sphere of lead of radius 8 cm ?

Q.11 Water flows at the rate of 10 m per minute through a cylindrical pipe having its diameter as 5 mm. How much time till it take to fill a conical vessel whose diameter of the base is 40 cm and depth 24 cm ?

Q.12 Two cones have their heights in the ratio 1 : 3 and the radii of their bases are in the ratio 3 : 1 , then the ratio of their volumes is

Q.13 Find the mean of following distribution : -

Class interval	50-70	70-90	90-110	110-130	130-150	150-170
No. of workers	18	12	13	27	8	22

Q. 14 Find the values of P and q when $px^3 + x^2 - 2x - q$ is exactly divisible by $(x-1)$ and $(x+1)$

Q. 15 Project Work (i) Application of Mathematics in other fields. (ii) Graphical representation of data T- 20 world cup.

Physics

To make a project report(Hand written at least 10 pages) on the given topic

- Roll no. 1 to 4
Electromagnets and its application.
- Roll no. 5 to 8
DC motor and its application.
- Roll no. 9 to 12
Domestic electric circuit.
- Roll no. 13 to 16
Working of MCB and its applications.
- Roll no. 17 to 20
Ohm's law and its application.
- Roll no. 21 to 24
Heating effect of current and its application.

Roll no. 25 to 28

Resistance and resistivity, factors affecting resistance and resistivity.

Roll no. 29 to 32

AC generator and its application.

Roll no. 33 to 35

Formation of images by mirror and lenses.

Numericals based on electric charge and current.

1. Calculate the no. Of charges to make one coulomb.
2. Define one coulomb.
3. Name the instruments used to measure electric current and Potential difference respectively. Which of these is connected in series and which is connected in parallel in a circuit?
4. What is the difference between a conductor and an insulator? Give one example of each.
5. The current in a wire is one ampere. Explain this statement in terms of the charge flowing through the wire.
6. Why is tungsten not used as a fuse wire?
7. Silver is better conductor of electricity than copper. Why then do we use copper wire for conducting electricity?
8. Why is tungsten suitable for making the filament of a bulb?
9. Consider the units volt, ohm and ampere. One of them is the same as the product of the other two. Which one is this?
10. A room has tube lights, a fan and a TV. Each tube light draws 40W, the fan draws 80 W, and the TV draws 60 W. On the average, the tube lights are kept on for five hours, the fan for twelve hours and the TV for eight hours every day. The rate for electricity is Rs. 3.10 per key. Calculate the cost of electricity used in this room in the month of March.

Chemistry

Section – A

Choose the correct option:

1. A substance which takes part in reaction is called. a) Product. b) reactant c) mixture d) compound
2. The reaction in which heat is evolved is called a) Endothermic b) decomposition c) displacement d) double displacement
3. What is the value of X in the given equation ? $\text{Na}_2\text{CO}_3 + x \text{HCl} \rightarrow 2\text{NaCl} + \text{CO}_2 + \text{H}_2\text{O}$ a) 1 b) 2 c) 3 d) 4
4. The reaction $\text{CO}_2 + \text{CaO} \rightarrow \text{CaCO}_3$ is an example of a) Decomposition reaction b) combination reaction c) displacement reaction d) double displacement reaction
5. Which of the following statement is true about the given reaction ? $\text{AB} + \text{C} \rightarrow \text{CB} + \text{A}$ a) B is more reactive than C b) C is more reactive than A c) C and A are equally metallic d) B is a metallic ion

Section – B

Fill in the blanks

6. Reaction in which heat is _____ are called exothermic reaction.
7. When calcium carbonate is heated, it decomposes to form _____ and _____
8. The burning of candle involves both _____ and _____ changes.
9. _____ ribbon is burnt in air to produce a white dazzling light.
10. A reaction in which two or more reactants combine to form a single product with entirely different properties is called _____.

Section – C

11. Define following with two examples. a) Decomposition reaction b) double displacement reaction
12. Write the balanced equation for the following chemical reactions. a) Hydrogen + chlorine. \rightarrow Hydrogen chloride b) Barium chloride + Aluminum sulphate \rightarrow Barium sulphate + Aluminum chloride c) Sodium + water \rightarrow sodium hydroxide + Hydrogen d) Calcium hydroxide + Carbon dioxide \rightarrow Calcium Carbonate + water e) Aluminum + Copper chloride \rightarrow Aluminum chloride + copper
13. What do you mean by exothermic and endothermic reactions ? Give examples.
14. What is balanced chemical equation? Why should chemical equations be balanced?
15. What is the difference between displacement and double displacement reactions? Write equations for these reactions.

BIOLOGY

1. Learn and revise topic nutrition of chapter 1 .
2. Draw well labelled diagram of-
 - a) Digestive system
 - b) Respiratory system
 - c) Structure of nephron
 - d) Heart
3. Answer the following questions in biology notebook
 1. Why can a person not swallow food and talk at the same time.
 2. Blood does not enter in cell but it fulfils all the requirements of cell. How?
 3. Before cooking meat some experienced cook keep it mixed with papaya for some time. Some add papaya while cooking meat. What may be the significance of adding papaya to meat?
 4. Indiscriminate use of painkillers and sometimes self-medication damage kidney. Explain.
 5. Why do human females suffer from bone problems like osteoporosis after the age of 45-50?
 6. People are advised to take two litres of water daily as it helps to detoxify the body and prevents constipation. But in winters many people reduce the intake of water. Do you have any explanation for the reduced water intake.
 7. In earlier time people used to eat more raw food, roasted grains, whole fruits etc. but in modern times it has been replaced by chocolates, candies fruit juice or processed food. Do you see any disadvantage of it? Explain.
 8. Twins are not uncommon. Our Bollywood films have many interesting stories of identical twins. Having studied reproduction in human beings can you answer how twins are produced?
 9. Veins have valves but arteries are devoid of them. Explain.
 10. How is the process of pollination different from fertilization?

SOCIAL SCIENCE

1. Prepare a project on COPRA 1986 , first read the chapter then divide the chapter into sub headings, include all relevant points , data and pictures to analyse the topic.

2 .Read below mentioned chapters from Text Book and write answers of questions given in chapter end exercises.

History- Ch 1 and Ch 3 , Geography- Ch 1 and 2 , D P- Ch 1 and 2, Eco- Ch 1 and 2

3. Map Practice

History- locate these place on an outlined political map of India

Madras, Nagpur, Calcutta, Champaran, Chauri Chaura, Kakori ,Bombay, Amritsar, Ahmedabad, Dandi ,Khera

Geography- Soils, National Parks & Dams and rivers of India.