



HIMALAYAN PROGRESSIVE SCHOOL

Kichha

My Name Is _____

I Study In Class _____





HIMALAYAN PROGRESSIVE SCHOOL

SUMMER HOLIDAY HOMEWORK (2021-22)

CLASS: XI (SCIENCE)

ENGLISH

1. Write an article on “Discipline –A Key to Success” in 150–200 words. Include the following points in your article:-
 - I. Meaning of discipline
 - II. Definition of it.
 - III. Types of it
 - IV. Importance of it in bringing success in our life
2. Write a Report on “Online Shopping: A Growing Trend in India”. In your report include factual Statistical Data in the form of Pie Chart or Bar Diagram in favour of the topic. Also include social and economic effects of Online shopping in India. Word limit 250 – 300 words.
3. Read any of the following novel –
 - The Secret of the lodge (<https://www.matrubharti.com/novels/1760/the-vikramaditya-secret-by-rahul-thaker>)
 - Nobody Lights a candle (<https://www.matrubharti.com/novels/16099/nobody-lights-a-candle-by-anjali-deshpande>)

Write the critical appreciation of it. Critical appreciation should include the following points:

- I. Name of the novel and its writer.
- II. Characters
- III. Its genre (comedy, tragedy etc.)
- IV. Plot
- V. Summary
- VI. What did you like in it ?

Note : Word limit 250 – 300 words

- Prepare your handwritten weekly NEWS PAPER on 2 A3 size White Sheets (total 4 sides). Collect positive news for a week first, arrange them as International News, National News, Sports News, Business News etc. You can paste related pictures, give advertisements, weather forecast etc. Give suitable name to your newspaper.
- **Watch of the two English movies- “Bend it like Beckham” and “Life of Pi”**

Write down your views on these movies. (Min 150 words each)

PHYSICS

1. Write the dimensions of (i) Boltzmann constant (ii) coefficient of thermal conductivity
 2. State and write the value (i) Astronomical unit (ii) Parsec.
 3. Calculate the dimensions of force and impulse taking velocity, density and frequency as basic units.
 4. The surface tension of water is 72 dyne /cm .express it in S.I units.
 5. State the number of significant figures in the following (i) 2.000m (ii) 5100kg (iii) 0.060 cm.
 6. If $x = a + bt + ct^2$, where x is in metre and t in sec. find unit of C .
 7. Differentiate the function $(x^2 - 4x + 5)(x^3 - 2)$
 8. The dimension of length are expressed as G^x, c^y, h^z where G, c and h are universal gravitational constant ,speed of light and Planck's constant respectively find the values of x, y and z.
 9. A Student measures the time period of 100 oscillations of a simple pendulum four times The data set is 90 s ,91 s, 95 s and 92 s .if the minimum division in the measuring clock is 1s,then find the reported mean time period ?
10. **Online Assignment:** Link of following topics will be shared from khan Academy in Google class room.
You all need to solve given topics in the app only

Date:	Topics
07/06/2021	Distance, displacement and coordinate systems
10/06/2021	Average velocity and Average speed
14/06/2021	Velocity and speed from graph
17/06/2021	Acceleration
21/06/2021	Objects in free fall

MATHEMATICS

1. Write all types of sets and give two example of each sets related to daily life.
2. Write any ten operations of sets and draw Venn-diagram.
- 3 Prove De-Morgan's law by three different methods
4. Draw the graph of any 8 function and write range of all function
5. Write 15 symbols of Set Theory
6. Login to Khan Academy and complete the given assignment
 - a. Cartesian product of sets (8/06/2021)
 - b. Domain , Co-domain and Range of Relation (15/06/2021)
 - c. Range of function (22/06/21)
 - d. Graph of function (29/06/21)

CHEMISTRY

Answer the following questions:

1. Classify the following into elements, compounds and mixtures. Divide mixtures into homogeneous and heterogeneous

- | | | | | |
|------------------|--------------------------|------------------|------------|---------------------|
| (i) marble | (ii) Honey | (iii) Toothpaste | (iv) Sugar | (v) gold |
| (vi) sand | (vii) Iodized Table salt | (viii) Iron | (ix) Steel | (x) Distilled water |
| (xi) slaked lime | (xii) oxygen | (xiii) Gasoline | (xiv) silk | (xv) Tap water . |

2. Classify following into metals and non-metals; -

- | | | | | |
|--------------|-----------------|--------------------|---------------|--------------|
| (i) Helium | (ii) Sodium | (iii) Mercury | (iv) graphite | (v) Carbon |
| (vi) silicon | (vii) Magnesium | (viii) Phosphorous | (ix) Arsenic | (x) Antimony |

3. How will you separate the constituents present in the following mixtures: -

- | | | |
|---------------------------|----------------------------------|-------------------------|
| (i) common salt and water | (ii) Iodine and sand | (iii) sugar and sulphur |
| (iv) Kerosene and water | (v) salt + sand + sulphur + Iron | |

4 (i) How many gram molecules are present in 4.9g of H_2SO_4 ?

(ii) Calculate the mass of 0.72 molecules of CO_2 .

5. Calculate the number of atoms in: - (i) 0.25 mole atoms of C (ii) 0.20 mole molecules of O_2 .

6. How many atoms of carbon and oxygen are present in 1.5 mole of CO_2 ?

7. Calculate the weight of CO having same no. of oxygen atoms as are present in 88g of carbon dioxide?

8. Chlorophyll contains 2.68% of Mg by weight. Calculate no. of Mg atoms in 2.00 g of chlorophyll. (atomic mass of Mg = 24)

9. ONLINE ASSIGNMENT: You have to do assignments which will be assigned on Khan Academy in Google classroom during summer break.

DATE	Topics
------	--------

8 June 2021	Uncertainty in measurement
11 June 2021	Mole concept , molar mass and percentage
14 June 2021	Stoichiometric and it's calculation
17 June 2021	Molarity of solution

ACTIVITY

- Write & learn the names and symbol of the elements of S-Block (Group no. 1 & 2) and P-Block (Group no. 13 to Group no. 18) . (Modern periodic table)
- Learn and write the shapes/ geometry of molecules containing bond pairs and lone pairs on the basis of VSEPR Theory (Chapter 4 –Chemical bonding and molecular structure)
- Draw a modern periodic table on a Chart Paper.

Note: Activity a & b and questions should be done in chemistry notebook

BIOLOGY-

1. Make a herbarium file including 10 different plant species also mention their biological identification.
2. Make a project on newly discovered species of animal and plant Kingdom. Mention at least five species of Each Kingdom.

*** List of Investigatory projects (Perform any two)**

- a) To isolate caffeine from tea leaves.
- b) To study the presence of insecticides and pesticides in various fruits and vegetables.
- c) Preparation of soybean milk and its comparison with the natural milk with respect to curd formation, effect of temperature, taste etc.

Complete the Investigatory project on the topic assigned to you, make a PPT and mail it to richa@hpskichha.com and cc it to principal@hpskichha.com and aarti@hpskichha.com on or before June 15, 2021.

- **To prepare a detailed research paper on the given topic on A4 size paper and submit it in non-plastic folder -**

ANSH KUMAR KOLI	Proxymal Supraventricular Tachycardia
ASHISH	Epidermodysplasia verruciformis
ASHISH KUMAR YADAV	Kawasaki Disease
AVIJIT SRIVASTAVA	Progeria
BHAWANA	Hunter's Syndrome
BUMESH SINGH CHUPHAL	Genetic Abnormalities
DHRUV PATHAK	Schizophrenia
DIVYA SAXENA	Vampire Disorder
HARSH RASTOGI	Prostrate Cancer
KANISHKA	Mad Cow Disease
MADHU	Fibrodysplasia ossificans Progressiva
MAHVISH	Cystic Fibrosis
MOHD BILAL	Methemoglobinemia
NISHTHA PATHAK	Foreign accent Syndrome
PALLAVI RATHORE	Abdominal Cocoon
RIYA ARORA	Hunter's Syndrome
SANJANA RAUTELA	Genetic Abnormalities
SHILPI RATHOR	Schizophrenia
SHIVAM KUMAR CHAUBEY	Vampire Disorder
TANISHA GOSWAMI	Prostrate Cancer
TANYA SHARMA	Epidermodysplasia verruciformis
VARSHA GANGWAR	Kawasaki Disease
VIVEK SAXENA	Progeria

- Compile it according to the prescribed format.
 - Cover page
 - Certificate
 - Acknowledgment
 - Index
 - Introduction
 - Content (including pictures/graphs/tables/survey report etc.)
 - Case Study
 - Bibliography
- Assessment Criterion- Content, Presentation, Research Work, Case study, Viva-voce and Confidence.
- It is an individual activity and marks will be awarded in half yearly examination.
-
-

- Revision videos will be shared as per the schedule mentioned below. You must watch videos carefully, an assignment based on videos will be shared on the same day via Google form. You must submit the same within the allotted time.

08 June 2021 – Evolution and Classification, taxonomy and tree of life

11 June 2021 – Kingdom Monera and Protista

14 June 2021 – Kingdom Fungi

16 June 2021 – Viruses

18 June 2021 – Simple Animals

Marks secured in assignment will have weightage in half yearly exams.

COMPUTER SCIENCE

Note: - Write the python code for all the questions and test your code in your computer through Python Shell or IDLE.

1. Write a python program to obtain temperatures of 7 days (Monday, Tuesday, Sunday) and then display average temperature of the week.
2. Write a python script to take year as input and check if it is leap year or not?
3. Write a python program to obtain roots of a quadratic equation ($ax^2 + bx + c = 0$ where $a \neq 0$)
4. Write a short program that ask for your height in centimeters and then converts your height to feet and inches. (**Hint:- 1 foot = 12 inches, 1 inch = 2.54 cm**)
5. Write a python program to find the area of triangle by using **heron's formula**.
6. Write a program to read a floating point number n. Print n, n^2 , n^3 , n^4 and n^5 .
7. Write a python code to compute simple interest and compound interest.
8. Write a program to input any string value from the user. Find the length of the string and print it in reverse order.
9. Write a program that prints out a list of the integers from 1 to 20 and their squares. The output should look like this:

```

2 --- 4
3 --- 9
4 --- 16
...
...
20 --- 400

```

10. Write a program that uses exactly four for loops to print the sequence of letters below:

AAAAAAAAAABBBBBBBBCCCCCEEEEE

PHYSICAL EDUCATION

1. Create a file of Athletics game.

Athletics event –

- A. Track event- short distance race, middle distance races, long distance race
- B. Field event - long jump, high jump, javelin throw, discuss throw , shot put,
[Content - Short History, Rules, Track & Playfield measurement, Equipment required , famous Indian sports/game Personality & Awardees]

- 2 Create a file of yoga. (Explain any 4 Asana with procedure, benefits & contraindication). Perform all the four Asana daily and on final day ask your brother, sister or friend to record the same. While recording perform the asanas, explain the steps and benefits. Send the video on jitendra@hpskichha.com.