SUBJECT :- PHYSICS

➢ Practice Chapter 1,2 and 3.
➢ Practice numerical based on topic completed so far.
➢ Complete practical and activity notebook.
➢ Collect information for preparing an investigatory project on any
topic related to Physics. The format for the project is given below

A) Index

B) Acknowledgement

C) Introduction – reason for selecting this topic

D) Theory

E) Questionnaire/Case studies

F) Observation

G) Conclusion

F) Bibliography

You can refer to the following topics

1. To study various factors on which the internal resistance/EMF of a cell depends.

2. To study the variations in current flowing in a circuit containing an LDR because of a variation in (a) the power of the incandescent lamp, used to 'illuminate' the LDR (keeping all the lamps at a fixed distance). (b) the distance of a incandescent lamp (of fixed power) used to 'illuminate' the LDR.

3. To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equi convex lens (made from a glass of known refractive index) and an adjustable object needle.

4. To design an appropriate logic gate combination for a given truth table.

5. To investigate the relation between the ratio of (i) output and input voltage and (ii) number of turns in the secondary coil and primary coil of a self-designed transformer.
6. To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism filled one by one, with different transparent fluids.

7. To estimate the charge induced on each one of the two identical styrofoam (or pith) balls suspended in a vertical plane by making use of Coulomb's law.

8. To study the factor on which the self-inductance of a coil depends by observing the effect of this coil, when put in series with a resistor/(bulb) in a circuit fed up by an A.C. source of adjustable frequency.

9. To study the earth's magnetic field using a tangent galvanometer.

SUBJECT :- CHEMISTRY

1. Complete class work up to chapter – 2 and 10.
2. Complete homework up to chapter – 2 and 10.
3. Learn all lesson studied so far.
4. Prepare an investigatory project for class 12 final practical.

   Follow this table, and prepare projects according to given roll number.

S.N.	Investigatory projects	Student's roll number
1	To study the presence of oxalate ions in guava fruit at different stages.	1, 6, 11, 16, 21, 26, 31, 36.
2	To study of quantity of casein present in different sample of milk.	2, 7, 12, 17,22, 27, 32, 37.
3	Preparation of soybean milk and its comparison with natural milk respect to curd formation, effect of temperature etc.	3, 8, 13, 18, 23, 28, 33, 38.
4	To study of digestion of starch by salivary amylase and effect of pH and temperature on it.	4, 9, 14, 19, 24, 29, 34.
5	To study the common food adulterants in fat, oil, butter, sugar, turmeric powder, chili powder and pepper.	5, 10, 15,20, 25, 30, 35.

5. Complete practical notebook.

6. Do numerical other than NCERT in homework copy of the chapter studied so far.

SUBJECT :- BIOLOGY

1. ACTIVITY 1- Complete your practical file
A. List of Experiments
1. Prepare a temporary mount to observe pollen germination.
2. Collect and study soil from at least two different sites and study them for texture, moisture content, pH and water holding capacity. Correlate with the kinds of plants found in them.
3. Collect water from two different water bodies around you and study them for pH, clarity and presence of any living organism.
4. Study the presence of suspended particulate matter in air at two widely different sites.
5. Study the plant population density by quadrat method.
6. Study the plant population frequency by quadrat method.
7. Prepare a temporary mount of onion root tip to study mitosis.
8. Study the effect of different temperatures and three different pH on the activity of salivary amylase on starch.
9. Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc.
B. Careful observation of the following (Spotting):
1. Flowers adapted to pollination by different agencies (wind, insects, and birds).
2. Pollen germination on stigma through a permanent slide or scanning electron micrograph.
3. Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice).
4. Meiosis in onion bud cell or grasshopper testis through permanent slides.
5. T.S. of blastula through permanent slides (Mammalian).
6. Mendelian inheritance using seeds of different color/sizes of any plant.
7. Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colorblindness
8. Controlled pollination - emasculation, tagging and bagging.

9. Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through permanent slides, models or virtual images. Comment on symptoms of diseases that they cause.

 10. Two plants and two animals (models/virtual images) found in xeric conditions. Comment upon their morphological adaptations.

11. Two plants and two animals (models/virtual images) found in aquatic condition

ACTIVITY 2:

   Collect information for preparing an investigatory/research or survey based project on any topic related to Biology. The format for the project is given below

      A) Index B) Acknowledgment C) Introduction –reason for selecting this topic
       D) Theory E) Questionnaire/Case studies F) Analysis and conclusion
       G) Experience of conducting the survey H) Bibliography
       You can refer to the following topics

a) Toxicity of Nicotine and its effect
 b) Significance of Medicinal plants
 c) Reasons for hair fall and hair transplantation
d) Atkins Diet/Ketogenic diet
e) Benefits of breathing exercises on our health
f) Stevia-Boon for Diabetes
g) Yoga and its benefits
h) Any Lifestyle disease/Hereditary disease/Communicable nor any other topic of your choice

SUBJECT :- MATHEMATICS

ACTIVITY-1: To verify that the relation R in the set L of all lines in a plane, defined by R = {(l, m) : l ⊥ m} is symmetric but neither reflexive nor transitive neither reflexive nor transitive.

ACTIVITY-2: To verify that the relation R in the set L of all lines in a plane,defined by L of all lines in a plane, defined by R = {(l, m): l || m} is an equivalence RELATION

ACTIVITY- 3: To demonstrate a function which is not one-one but is onto

ACTIVITY-4: To demonstrate a function which is one-one but not onto

ACTIVITY 5: To evaluate the definite integral $\int_a^b \sqrt{1 - x^2}dx$ as the limit of a sum and

   verify it by actual integration

ACTIVITY 6: To verify that angle in a semi-circle is a right angle, using vector method

ACTIVITY-7: To demonstrate the equation of a plane in normal form

ACTIVITY 8: To explain the computation of conditional probability of a given

      event A, when event B has already occurred, through an example of throwing a pair of dice.

- . Revise the chapters done and also do examples of each chapter in a separate practice copy.

SUBJECT :- ENGLISH
General Instructions :

- **Revise all the topics/chapters done in the class.**
- **Writing skills Homework should be done in your English Classwork notebook.**
- **Projects to be made in separate project file.**

Q1. PROJECT TOPICS

TOPIC 1 - The Last Lesson

• Elaborate the theme of Linguistic Chauvinism and Procrastination and importance of Time Management.

• Collect data about countries where people have these tendencies.

• How do they give importance to their mother tongue?

TOPIC 2 - The Lost Spring

• Collect data about various slums in our country and living conditions there. Also elaborate whether children have access of education there.

• How children are engaged in various kinds of work(Below 14)?

• Collect all information about biggest slums.

TOPIC 3 - My Mother At Sixty-six

• Explain the importance of parents in the family.

• On the context of the poem how do you love and care your mother?

• Collect data about condition of old age homes in our country, living condition there, number of old age homes.

TOPIC 4 - The Third Level

• Why 'hurry and worry' are trademarks of modern men?

• How far today life is insecure? Why do modern men want to escape?

• Interview your school principal/teacher or the counselor to know the problems (stress, fear, anxiety etc.) faced by the students .

TOPIC 5- DEEP WATER
- Elaborate your any personal experience about any kind of fear haunted you yet.
- How did you overcome that fear ?
- Collect data about types of fear people have in your locality and how they are trying to overcome it.

Q2. WRITING SKILLS

NOTICE WRITING

1. You are Secretary of the History Club of Vidya Mandir School. Draft a notice in not more than 50 words informing students of a proposed visit to some important

historical sites in your city.

2. As Sports Secretary of G.D.G. Public School, Pune, draft notice in not more than 50 words for your school notice board informing the students about the sale of old sports goods of your school. You are Rohini/Rohit

3. You are SrinivafSrinidhi of D.P. Public School, Nagpur. As Student Editor of your school magazine, draft notice in not more than 50 words for your school notice board inviting article sketches from students of all classes

INVITATIONS

1. As the principal of a reputed college, you have been invited to inaugurate a Book Exhibition in your neighbourhood. Draft a reply to the invitation in not more than 50 words, expressing your inability to attend the function. You are Tarun/Tanvi

2. Sunrise Global School, Agra is going to organize a one-act play competition in the school auditorium. You have decided to invite noted stage artiste, Nalini to grace the occasion. Draft a formal invitation for her in about 50 words. You are Karuna/Karan, Cultural Secretary

3. You are the Secretary of the Old Students' Association, Mayo School, Ajmer. The 20th Alumni Meet will be held on Sunday, the 28th Sept. 20XX at 8.00 p.m. at Palace Hotel. Write invitation letters to ail the old students of the school to attend the meet.
LETTER TO THE EDITOR

1. You are a resident of Mahalakshmi Apartments, Patparganj, Delhi. Your residential area is flooded with roadside dwellers who are deprived of the basic civic amenities like light, public toilets and bathrooms. Write a letter to the Editor of The Hindustan Times, highlighting the problems of these roadside dwellers, and also the problems posed by them to the public. Give suggestions for improvement.

2. You are Nandita Patnaik of 25, Ring Road, Cuttack. You came across an advertisement based on laser technology to help ladies look best. You feel strongly about the dangers inherent in the use of these synthetic chemicals and over exposure of skin to laser beams. Write a letter to the Editor of 'The Sun', highlighting the possible dangers to the users and suggesting action against the exploiters.

SUBJECT :- COMPUTER SCIENCE
Do as directed

- Revise chapter 1- Review of Python Basics thoroughly.
- Make a mind map of chapter 2 - Functions.
- Download previous 5 years CBSE paper of CS, note down and solve questions based on chapter 1,2,3 and 4.

Solve these questions

1. Using an example show how a function in Python can return multiple values.
2. How is built-in function pow() function different from function math.pow() ? Explain with an example.
3. Write a program that uses a user defined function that accepts name and gender (as M for Male, F for Female) and prefixes Mr/Ms on the basis of the gender.
4. Write a program to check the divisibility of a number by 7 that is passed as a parameter to the user defined function.
5. Write a program that implements a user defined function that accepts Principal Amount, Rate, Time, Number of Times the interest is compounded to calculate and displays compound interest. (Hint: CI = ((P*(1+R/N))NT)

6. Write a program that has a user defined function to accept 2 numbers as parameters, if number 1 is less than number 2 then numbers are swapped and returned, i.e., number 2 is returned in place of number1 and number 1 is reformed in place of number 2, otherwise the same order is returned.

SUBJECT :- PHYSICAL EDUCATION

1.PHYSICAL FITNESS TEST

   SAI Khelo India Test, Brockport Physical Fitness Test (BPFT) : 6 marks

BMI: Weight/Height Speed: 50 Mtrs Standing Brad jump

 Endurance:

600 Mtr Run/ Walk

Flexibility:

Sit and Reach (Box) Core:

Partial Curl up 30 Secs Muscular Endurance:

Push Ups (Boys) & Modified Push Ups for Girls

 Khelo India (school version)

Name the test items of

GKhelo India fitness testG

Proficiency in

2 .G GAMES AND SPORTS (SKILL OF ANY ONE IOA RECOGNISED SPORTS/ GAMES OF YOUR CHOICE (7 marks)

On your choice games (volleyball, football, Hockey, Cricket, Basketball,Bocce and Unified Basketball,(children with special needs- divyang)

3.YOGA PRACTICE (7 marks)

 GYoga and lifestyle G(Obesity,Diabetes, Asthma, Hipertension,Back pain)

RECORD FILE (5 marks)

Viva Voce (Health/ Games & Sports/ Yoga) : 5 Marks