



RAMJAS SCHOOL ANAND PARVAT NEW DELHI – 110005
SUMMER HOLIDAY HOMEWORK (SESSION 2024-25)
CLASS XI - SCIENCE

SUBJECT: ENGLISH

- Research on the following:
 - Egyptians civilizations –with particular reference to Tut’s Mummy and its discovery. Stick pictures.
 - Sailing terminology and parts of a boat with illustrations/pictures and gather information about Isle Amsterdam.
 - Khushwant Singh’s life and works. Write a brief synopsis of any book authored by him.
 - Ensure that there are no spelling or grammatical error in your presentation.
 - Write minimum two pages on each. Ensure to add illustrations/pictures.
- Cut out and paste 5 clippings each of Classified Ads under the following heads-
 - For sale
 - To-let
 - Situation vacant
 - Matrimonial
 - Lost/ Found/ Missing
- Select any one photograph of yours from your early years. Paste it in H.W notebook and narrate the incident/event and your feelings associated with the picture. (Word Limit – 100-120 words). Write as a Diary Entry/ Letter to a dear friend / Poem.

NOTE: The Holiday Homework should be done in English Homework Notebook.

SUBJECT: PHYSICS

PART 1 ----*Art Integrated Project*

Topics:

1. Dimensions and error analysis	5. Thermodynamics
2. Kinematics	6. Rotational motion
3. Mechanical properties of solids and fluids	7. Laws of motion
4. Work, energy and power	

Mode of performing AIL

1. Arts	4. Poster
2. Collage	5. Flow charts
3. PPT	

PART 2--- Assignment

- Write the dimensional formula of
 - Gravitational Potential
 - Pressure gradient
 - Angular momentum
- Write the dimensions of M, L and T in
 - Work done by torque
 - Moment of force
 - Impulse
- The wavelength of a particle (λ) depends upon plank’s constant (h), mass of the particle (m) and velocity of the particle (v). Using dimensional analysis derive a formula for wavelength of the particle.
- Check the dimensional consistency of the relation

$$V = u + at$$
- Using dimensional analysis convert 1 NEWTON into DYNE
- Check the accuracy of the relation

$$Mv^2/2 = Mgh$$
 Where M is the mass of the body, v is the velocity, g is the acceleration due to gravity, h represents height.
- Derive an expression for time period(T) of a simple pendulum, which may depend upon mass of the bob, length of pendulum and acceleration due to gravity g.
- Write down any three limitations of dimensional analysis.

9. The frequency (f) of vibration of a stretched string depends upon its length (l), mass per unit length (m) and tension in the string (T). Using dimensional analysis derive a formula for frequency.
10. Write down any 50-dimensional formulae for any 50 physical quantities.

SUBJECT: CHEMISTRY

Revise Ch-1 and solve all the NCERT back exercise questions of the chapter, on white A-4 size sheets.

- Make a power-point presentation/ model/ case-study/ poster (any of these) on any relevant topic of chemistry.
- Suggested topics are given below, but you are allowed to take up any other topic of your interest, as well.
- Presentation should be your own work & not downloaded from internet. Poster to be made on A-3 sheet. Case-study should be 5-6 pages, excluding the title page.
- Research is to be done thoroughly and work done should be creative + interactive.
- **Suggested topics:**
 - a) Types of batteries
 - b) Poster on any one element of your choice
 - c) Study of solubility of solutions and factors affecting it
 - d) Noble laureates of the decade or century
 - e) Recent advances in the field of chemistry

SUBJECT: MATHS

Art Integrated Project

#Do AIL on any one topic of the following topics: -

1. Sets	6. Limits and Derivatives
2. Permutations and Combinations	7. Straight Lines
3. Relations and Functions	8. Trigonometry functions
4. Sequence and Series	9. Complex Number
5. Binomial theorem	10. Linear inequalities

Mode of performing AIL

1. Art	4. Poster
2. Collage	5. Mind Map
3. PPT	6. Flow charts

Do Assignment posted on your WhatsApp group.

SUBJECT: PSYCHOLOGY

1. To make a Psychology project on any one of the following topics: Anxiety, Cognitive Thinking, Empathy, Depression and Memory.
2. To write two Practicals on practical file
3. Painting on Mental Disability
4. Revision of NCERT chapter 1 and Chapter 2 questions with examples.
5. To write MCQ's of the read chapters on Psychology notebook with completed question answers.

SUBJECT: BIOLOGY

1. Complete the back exercise of Chapter-1- The living world, Ch-2- Biological Classification, Ch-3 Plant Kingdom in your notebook.
2. Prepare investigatory projects on the topics of your choice.

