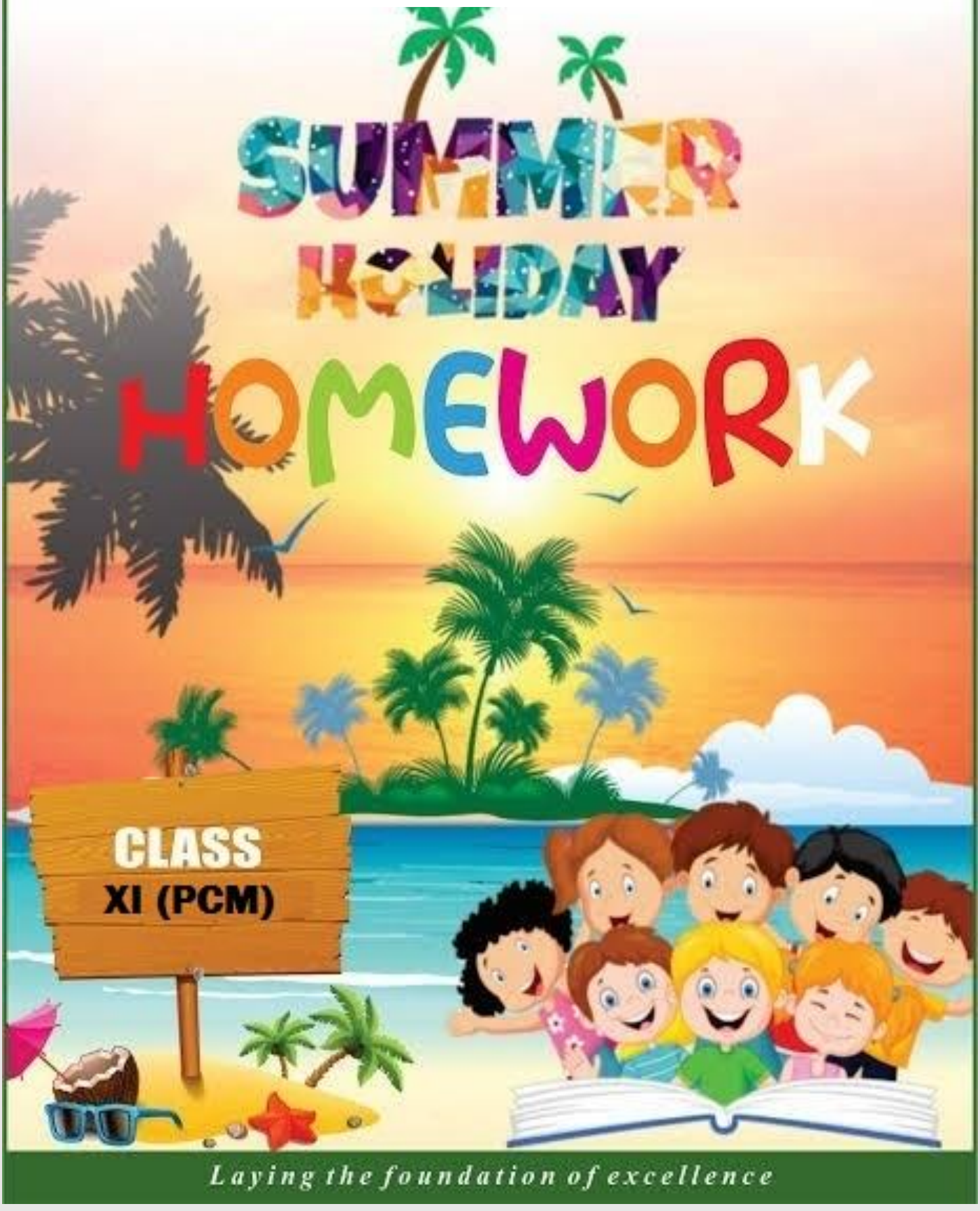
L.R.S. ACADEMY

A Senior Secondary English Medium School, Nagina (Bijnor)
(Affiliated to C.B.S.E. New Delhi)



Laying the foundation of excellence

MESSAGE FROM PRINCIPAL'S DESK

Dear Students,

Holidays are a wonderful opportunity to pause, relax, and rejuvenate your mind and body. It is a time to spend quality moments with your family, strengthen relationships, explore new interests, and create beautiful memories that will stay with you forever.

While you enjoy your break, I encourage you to use this time wisely. Complete your holiday homework with sincerity and creativity. It is not just an assignment, but a chance to learn, discover, and express yourself. Every small effort you put in today builds your knowledge, boosts your confidence, and prepares you for a brighter tomorrow.

Remember, discipline today shapes your future.
Be curious, be consistent, and always do your best.

Read good books, stay active, observe your surroundings, learn new skills, and help your parents and elders. Take care of your health and practice kindness in your words and actions. These small habits build strong character and lead you towards a successful and meaningful life.

I look forward to welcoming you back with happy faces, refreshed minds, and renewed energy. Let us continue our journey of learning, growing, and achieving greater heights—together.

Wishing you a joyful, safe and enriching holiday!

Learn with curiosity.
Work with sincerity.
Shine with character.

Mrs Noopur Chandra
Principal
LRS ACADEMY, NAGINA

Instructions to do holiday homework -:

1. **Take separate thin notebook for each subject cover each notebook & label properly.**
2. **Take care of your handwriting.**
3. **Cover the notebook properly & label it.**
4. **school will reopen on 01/07/2026 & Holiday homework will be summited at the same date.**
5. **Holiday homework marks will be added in the next exam.**

L. R. S. ACADEMY, NAGINA

HOLIDAY HOME WORK- 2026-27

Class –XI (PCM)

ENGLISH CORE (301)

1. Poster Making
   Design attractive posters on the following topics:
   Books – Our Best Friends
   Take Regular Exercise
2. The Portrait of a Lady
   About the Author – Khushwant Singh
   Character Sketch of The Grandmother and the Narrator
   Three Phases of the Grandmother's Life
   Values Learnt from Grandparents
   Pain and Problems of Old Age
   Moral / Message of the Chapter
3. 'A Photograph' Poem Activity
   Mention Literary Devices and Describe the theme used in the poem A Photograph by Shirley Toulson
   Paste or draw suitable pictures related to the poem.
4. Mind Map Activity
   Prepare a creative Mind Map of the chapter:
   The Summer of the Beautiful White Horse by William Saroyan

Instructions
Prepare a well-decorated project file covering all the topics:
Introduction
Certificate
Acknowledgement
Index
Use neat handwriting.
Add relevant pictures and colourful headings wherever required.
Submit the holiday homework after the summer vacation.

MATHEMATICS (041)

Make an assignment for the following mathematical problems. (Make a file of 10-12 Pages)

1. What is Sets. How many kinds of set you know. Give some operations on Sets with an example in Venn diagram.
2. What are Relations. How many relations you know. Explain all with an example.
3. Is there any relationship between Sets and Relations. Can we say whether sets and relations are the complementary of each others.

CHEMISTRY (043)

1. Calculate the number of moles present in 22 g of CO_2.
2. Calculate the number of molecules present in 18 g of H_2O.
3. Calculate the number of atoms present in 11.2 L of O_2 at STP.

4. Calculate the number of electrons present in 2 moles of Na atoms.
5. Calculate the mass percent of oxygen in H_2SO_4.
6. Calculate the mass percent of nitrogen in NH_4NO_3.
7. Calculate the empirical formula of a compound containing 40% carbon, 6.7% hydrogen and 53.3% oxygen.
8. Calculate the molarity of a solution containing 5 g NaOH in 500 mL solution.
9. Calculate the molality of a solution containing 9.8 g H_2SO_4 dissolved in 100 g water.
10. Calculate the mass of NaCl required to prepare 250 mL of 0.2 M solution.
11. How many moles of oxygen are required for complete combustion of 2 moles of methane?
12. Calculate the mass of CO_2 produced when 16 g methane burns completely.
13. Calculate the volume occupied by 0.5 mole of gas at STP.
14. Calculate the number of moles present in 5.6 L of nitrogen gas at STP.
15. Calculate the wavelength of an electron moving with velocity
2.2×10^6 m/s.
($h = 6.626 \times 10^{-34}$ Js, $m = 9.1 \times 10^{-31}$ kg)
16. Calculate the uncertainty in position if uncertainty in momentum is
1×10^{-24} kg m/s.
($h = 6.626 \times 10^{-34}$ Js)
17. Calculate the energy of a photon having wavelength 400 nm.
($h = 6.626 \times 10^{-34}$ Js, $c = 3 \times 10^8$ m/s)
18. Calculate the frequency of radiation having wavelength 600 nm.
19. Calculate the wavelength of radiation having frequency 5×10^{14} Hz.
20. Calculate the energy associated with radiation of frequency
21×10^{14} Hz.
21. Calculate the number of photons emitted by a source producing 6.6×10^{-19} J energy per photon and total energy 6.6 J.
22. In photoelectric effect, calculate the kinetic energy of emitted electron if work function is 2 eV and incident energy is 5 eV.
23. Calculate the threshold frequency if work function of metal is 3.3×10^{-19} J.
24. Calculate the number of atoms present in 4.6 g sodium.
25. Calculate the molarity of a solution prepared by dissolving 10 g NaOH in 250 mL solution.
26. Calculate the molality of a solution containing 18 g glucose dissolved in 180 g water.
27. Calculate the mass of oxygen present in 44 g CO_2.
28. Calculate the number of molecules present in 44.8 L hydrogen gas at STP.
29. Calculate the wavelength of a photon whose energy is 3.3×10^{-19} J.
30. Calculate the number of electrons present in 1 mole of magnesium atoms.

Prepare the Project on the Topic Given and Explained in the Class

1. Checking the bacterial contamination in drinking water by testing sulphide ion
   Roll Numbers: 1, 9, 17, 25, 33,
2. Study of the methods of purification of water
   Roll Numbers: 2, 10, 18, 26, 34,
3. Testing the hardness, presence of iron, fluoride, chloride etc. in different water samples
   Roll Numbers: 3, 11, 19, 27, 35,
4. Investigation of the foaming capacity of different washing soaps and the effect of addition of sodium carbonate on it
   Roll Numbers: 4, 12, 20, 28,
5. Study of the acidity of different samples of tea leaves
   Roll Numbers: 5, 13, 21, 29,
6. Determination of the rate of evaporation of different liquids
   Roll Numbers: 6, 14, 22, 30,
7. Study of the effect of acids and bases on the tensile strength of fibres
   Roll Numbers: 7, 15, 23, 31,
8. Analysis of fruit and vegetable juices for their acidic nature
   Roll Numbers: 8, 16, 24, 32,

Note: Students have to prepare the investigatory project neatly in the practical file with proper headings, observations, conclusion, and diagrams wherever required. Students must also explain their project in the class.

PHYSICS (042)

1. Makechart related with dimensions and Units
2. Make chart on vernier callipers with least count Also solve at least 5 questions from ncert exemplar from each chapter
3. Units and measurements and Motion in straight line.

PHYSICAL EDUCATION (048)

Practical 1st:-Fitness test SAI khelo India Fitness Test in school.
*BMI
*50 mt. Desh
*600 mt. Run/walk
*Sit and reach test
*Partial curl – up
*Push- up for boys/modified push -up for girls.
Practical 2nd:- Meaning of yoga, Importance of yoga and procedure, Benefits and Contraindications of any two sitting two standing and two lying Asans .
Practical 3rd:- Proficiency in games and sports.
*A well labelled diagram of the field/court.
*History of the game.
*Rules and regulations.
*Fundamental skills.
*Common terminologies used in sports.
*Major tournaments
*Famous personalities.

Important Questions

Q.1, Define physical education. Explain the aims and objectives of physical education.
Q.2, Explain all the career option in physical education.
Q.3, Define khelo India and Fit India program along with the objectives.
Q.4, Explain in detail about ancient and modern olympic game.
Q.5, Explain the role of IOA and IOC.