LITTLE FLOWER CHILDREN SCHOOL-BALLIA

Affiliated to CBSE New Delhi [10+2]

The time to cheer aloud,
The time when you can play,
On the beach with your loved ones,
And do what your heart say,
There is no one to see here,
There is nothing as such to see,
Only the sunlight passing the home,
And clear blue sky as can be,
Summers are finally here,
So have a good summer time,
As it's the most amazing time
Happy Summer Time.

Session- 2026-27

Class: 11th (SCIENCE)

Passport Size

Paste Photo

Students Name _____

Roll No: _____

Section: _____

Holiday Homework

NOTICE

Happy Holidays!

NOTICE NO.: LFCS/May/09/2026 DATE: 22/05/2026

Dear Parents,

Summer vacation is a joyful and refreshing time for children. It provides them with an opportunity to relax, explore their interests, and learn beyond textbooks. It is also the perfect time to encourage creative thinking and skill development.

To make this vacation meaningful and engaging, we have prepared fun-filled and educational assignments. These have been designed to ensure that children enjoy themselves while learning. We encourage students to complete the tasks independently, with minimal assistance. Your cooperation will help us nurture responsible and curious learners. We would appreciate it if the children complete the assignments on their own. Help and guidance may be given wherever required. Let us work together towards the betterment of the students.

Exciting prizes will be awarded to the be.five Holiday Assignments.

SUMMER VACATION STARTS FROM 23rd MAY 2026 TO 30TH JUNE 2026

Classes will resume on 1st July 2026 (Wednesday) as usual.

GENERAL INSTRUCTIONS TO BE FOLLOWED

1. The Summer Vacation is from 23rd May 2026 to 30th June 2026.
2. Classes will resume on 1st July 2026 (Wednesday) as usual.
3. The Summer Vacation Home Assignment is available on our website: www.lfcsballia.co.in
4. The school office will remain open from 8:00 am to 1:00 pm during the summer vacation.
5. The holiday homework is to be done neatly and in accordance with the questions asked. Submit it to the subject teacher on or before 5th July 2026. Late submissions will not be considered for prizes.
6. Mock Test Result Distribution will be held on 25th May 2026, from 9:00 am to 11:30 am.
7. Download the holiday homework pages and complete the tasks.
8. Handwriting should be neat and legible.
9. All holiday homework should be done in the designated holiday homework copy or on the given worksheets.
10. The holiday homework will be graded.
11. Work should be original and not copied from the internet.
12. Assignments should be submitted to the respective subject teachers. Surprise recapitulations will be conducted in July.
13. Encourage your ward to complete the holiday homework independently.

SUMMER TIPS FOR STUDENTS

- Stay active: Go for walks, play outdoor games, do yoga and exercise daily.
- Read daily: Books, newspapers, stories and comics improve knowledge and vocabulary.
- Eat healthy: Eat fresh fruits, homemade food and drink plenty of water.
- Learn new skills: Try cooking, gardening, art, music or any new hobby.
- Spend quality time with family, help in household chores and talk to grandparents.
- Avoid excessive screen time and make the best use of your vacation.

OTHER IMPORTANT POINTS

- Maintain cleanliness and personal hygiene.
- Be safe and follow all safety rules.
- Use your time wisely and develop good habits.
- Think positive, be kind and spread happiness.

Let's make this summer a time of learning, fun and beautiful memories!

Thanks & Regards
LFCS BALLIA

SUMMER VACATION HOMEWORK

English Core

INSTRUCTIONS FOR STUDENTS

- **Maintain a separate notebook for holiday homework**
- **Write neatly with proper headings**
- **Practice daily writing tasks**
- **Revise weekly**

SUGGESTED ESSAY TOPICS

(India & Global Context)

1. Climate change and its impact
2. Artificial Intelligence and job concerns
3. Mental health awareness
4. Digital addiction among youth
5. Women empowerment
6. Sustainable development
7. Global conflicts and peace
8. Role of education in nation building

LETTER WRITING

1. Write a letter to the editor about increasing air pollution in your city.
2. Write a letter highlighting the problem of plastic waste and its impact on the environment.

Biology

Section A: Core Theory & Concept Maps

Create detailed, one-page visual concept maps for each of the following topics in your biology notebook:

- **Chapter 1 (The Living World):** Taxonomic hierarchy showing the relationship from Kingdom down to Species, including examples of Man and Mango.
- **Chapter 2 (Biological Classification):** A comparative table of the Five-Kingdom Classification based on cell type, cell wall, nuclear membrane, and mode of nutrition.
- **Chapter 3 (Plant Kingdom):** Alternation of generations, specifically comparing the life cycles of a Bryophyte (Haplodiplontic) and a Gymnosperm (Diplontic).
- **Chapter 4 (Animal Kingdom):** A master chart classifying non-chordates based on coelom, symmetry, and level of organization.

Section B: Investigative Practicals & Activity

Complete the following hands-on activities and record your observations.

- **Activity : Curated Digital Specimen Album**
  - Find or take high-quality photographs of one organism representing each of the 11 major animal phyla (Porifera to Chordata).

- Compile these into a digital presentation or scrapbook.
- Highlight two distinct diagnostic features for each organism.

Section C: High-Order Thinking Questions (HOTS)

Answer the following analytical questions in short, precise paragraphs:

1. **Chapter 1:** Why are living organisms classified? Explain how a museum differs from a botanical garden as a taxonomic aid.
2. **Chapter 2:** Viruses are held in a biological twilight zone. Why are they excluded from Whittaker's Five-Kingdom classification system?
3. **Chapter 3:** Major evolutionary shifts occurred between Pteridophytes and Gymnosperm reproduction. Explain the significance of the seed habit.
4. **Chapter 4:** Radial symmetry is advantageous for sessile organisms, while bilateral symmetry benefits motile ones. Justify this statement with examples.

Section D: Diagrammatic Mastery Portfolio

Draw neat, well-labelled diagrams of the following structures on blank white sheets. Use colored pencils to highlight key cellular components:

- Bacteriophage and Tobacco Mosaic Virus (TMV)
- Euglena and Paramecium
- Life cycle of a Liverwort / Moss
- Anatomy of a typical Diploblastic vs. Triploblastic organism

Physics

Instructions

1. Complete all questions in a separate notebook or on A4 sheets.
2. Draw neat diagrams wherever required.
3. Show complete calculations with proper SI units.
4. Maintain neat and systematic presentation.
5. Revise all NCERT examples and exercises.

Chapter 1: Physical World

Section A – Very Short Answer Questions

1. Define Physics.
2. Name any two branches of Physics.
3. What is meant by scientific method?
4. Write the SI unit of length.
5. What is the importance of experiments in Physics?

Section B – Short Answer Questions

1. Explain the relationship between Physics, technology and society.
2. Differentiate between classical physics and modern physics.
3. Why is measurement important in science?
4. Describe any three applications of Physics in daily life.
5. Explain the role of Physics in medical science.

Section C – Long Answer Questions

1. Discuss the scope of Physics with suitable examples.
2. Explain how Physics contributes to the development of technology.
3. Write a detailed note on fundamental forces in nature.

Activity

Prepare a chart showing different branches of Physics and their applications.

Chapter 2: Units and Measurements

Section A – Very Short Answer Questions

1. Define unit.
2. What are fundamental quantities?
3. Name the seven SI base units.
4. Define least count.
5. What is a dimensionless quantity?

Section B – Short Answer Questions

1. Differentiate between precision and accuracy.
2. State the rules for counting significant figures.
3. Define error and write its types.
4. Explain the importance of dimensional analysis.
5. Write the dimensions of:
    - Force
    - Pressure
    - Energy
    - Velocity

Section C – Numerical Questions

1. Convert:
    - 5 km into metres
    - 72 km/h into m/s
    - 2500 g into kg
2. Calculate the percentage error if the measured value of a quantity is 49 cm while the actual value is 50 cm.
3. A student measures the length of a table as 2.35 m. Find the number of significant figures.
4. Find the dimensional formula of:
    - Work
    - Power
    - Momentum
5. Verify the dimensional correctness of the equation:

$$v^2 = u^2 + 2as$$

Activity

Measure the length, breadth and height of a book using a ruler and calculate its volume.

Chapter 3: Motion in a Straight Line

Section A – Very Short Answer Questions

1. Define displacement.
2. What is speed?
3. Define acceleration.
4. What is uniform motion?

5. State the SI unit of velocity.

Section B – Short Answer Questions

1. Differentiate between distance and displacement.
2. Differentiate between speed and velocity.
3. Explain uniform and non-uniform motion with examples.
4. What is retardation?
5. Explain graphical representation of motion.

Section C – Numerical Questions

1. A car travels 120 km in 2 hours. Calculate its average speed.
2. A body starts from rest and accelerates at 4 m/s^2 for 5 seconds. Find the final velocity.
3. A train moving with a velocity of 20 m/s stops in 10 seconds. Find its acceleration.
4. A ball is thrown vertically upward with a velocity of 30 m/s. Calculate the maximum height reached.
5. A body moves with uniform acceleration. Initial velocity = 10 m/s, acceleration = 2 m/s^2, time = 8 s. Find:
    - Final velocity
    - Distance travelled

Graph-Based Questions

1. Draw a distance-time graph for uniform motion.
2. Draw a velocity-time graph for uniformly accelerated motion.
3. Explain how acceleration can be determined from a velocity-time graph.

Activity

Observe the motion of any moving vehicle and record its speed at different intervals of time. Prepare a small report.

Assignment Work

Case Study Questions

1. Explain how accurate measurements are important in space research.
2. Describe the importance of motion analysis in transportation systems.
3. Write a short note on the contribution of Indian physicists to science.

Project Work

Choose any ONE topic:

1. Life and achievements of Sir Isaac Newton.
2. Contribution of C.V. Raman in Physics.
3. Modern measuring instruments and their uses.
4. Applications of motion in sports.

(Project should include introduction, pictures, explanation and conclusion.)

Chemistry

Instructions

1. Complete all questions in a separate notebook or on A4 sheets.
2. Write all chemical equations neatly and balance them properly.
3. Show complete calculations in numerical problems.
4. Draw neat diagrams wherever required.
5. Revise NCERT examples and exercises thoroughly.

Chapter 1: Some Basic Concepts of Chemistry

Section A – Very Short Answer Questions

1. Define chemistry.
2. What is the law of conservation of mass?
3. Define mole.
4. What is molar mass?
5. Define empirical formula.

Section B – Short Answer Questions

1. State Dalton's atomic theory.
2. Differentiate between atoms and molecules.
3. Explain the significance of the mole concept.
4. Define atomic mass and molecular mass.
5. Differentiate between empirical formula and molecular formula.

Section C – Numerical Questions

1. Calculate the number of moles in 18 g of water.
2. Calculate the molecular mass of carbon dioxide (CO_2).
3. Find the number of molecules present in 44 g of CO_2.
4. Calculate the percentage composition of water.
5. An element contains 40% carbon, 6.7% hydrogen and 53.3% oxygen. Determine its empirical formula.

Activity

Prepare a chart showing important laws of chemical combination with examples.

Chapter 2: Structure of Atom

Section A – Very Short Answer Questions

1. Who discovered the electron?
2. What is atomic number?
3. Define mass number.
4. What are isotopes?
5. State the maximum number of electrons in K-shell.

Section B – Short Answer Questions

1. Explain Rutherford's alpha particle scattering experiment.
2. Differentiate between orbit and orbital.
3. State Bohr's postulates of atomic model.
4. Explain the dual nature of matter.
5. Write the four quantum numbers and their significance.

Section C – Long Answer Questions

1. Describe Thomson's atomic model and its limitations.
2. Explain Bohr's model of hydrogen atom.
3. Discuss Heisenberg's uncertainty principle.
4. Explain Aufbau principle, Pauli exclusion principle and Hund's rule.

Section D – Numerical Questions

1. Calculate the energy of a photon with frequency 6×10^{14} Hz.
2. Find the wavelength of radiation having frequency 3×10^{8} Hz.

3. Calculate the number of protons, neutrons and electrons in:
    - $^{12}C_6$
    - $^{23}Na_{11}$
4. Write the electronic configuration of:
    - Oxygen
    - Sodium
    - Calcium
5. Calculate the maximum number of electrons in:
    - L-shell
    - M-shell

Activity

Make a 3D model of an atom showing electrons, protons and neutrons.

Chapter 3: Classification of Elements and Periodicity in Properties

Section A – Very Short Answer Questions

1. Who proposed the modern periodic table?
2. Define periodicity.
3. What is atomic radius?
4. Define ionization enthalpy.
5. What is electronegativity?

Section B – Short Answer Questions

1. State the modern periodic law.
2. Explain periodic trends in atomic size.
3. Differentiate between ionization enthalpy and electron gain enthalpy.
4. Explain the variation of metallic character in a period and group.
5. Why are noble gases chemically inert?

Section C – Long Answer Questions

1. Explain the features of the modern periodic table.
2. Discuss the periodic trends in:
    - Atomic radius
    - Ionization enthalpy
    - Electron gain enthalpy
    - Electronegativity
3. Explain the significance of periodic classification of elements.

Section D – Application-Based Questions

1. Why does atomic radius decrease across a period?
2. Why do alkali metals have low ionization enthalpy?
3. Why is fluorine the most electronegative element?
4. Explain why noble gases are placed in Group 18.
5. Why does metallic character increase down a group?

Activity

Prepare a colorful periodic table showing groups, periods and types of elements.

Assignment Work

Case Study Questions

1. Explain the importance of chemistry in daily life.
2. Describe the role of periodic table in modern science.
3. Explain how atomic structure helps in understanding chemical reactions.

Project Work

Choose any ONE topic:

1. Biography and contribution of Dmitri Mendeleev.
2. Applications of isotopes in daily life.
3. Importance of chemistry in medicine and agriculture.
4. Evolution of atomic models.

(Project should include introduction, pictures, explanation and conclusion.)

Mathematics

1.Learn and Write all formula from chapter 1 to 3
2.Solve all examples of R.S. Agrawal from chapter 1 to 3 on a new copy.
3.Solve all the exercise of exemplar from chapter 1 to 3 on a new copy.
4.Make a project work on relations and functions.
i) Types of relations and define it.
ii) Type of functions and Define it.

Physical Education

1.Project I

The 'Khelo India Programme' is an initiative by the Government of India to encourage sports in the country.

Present a project on the vision, mission, aims and objectives of Khelo India.

2 Project II

A lot is spoken about the Olympic Games held once every four years. There are other forms like the Para Olympics and Special Olympic Games that are rarely brought to lime light, so much that there are many who are completely unaware of these.

Present a report on these types of games focussing on how they are different from the regular Olympics. Include a paragraph on India's participation and performance in the last two games. Attach pictures wherever necessary and relevant.

GUIDELINES

- Both the projects are compulsory. Each carries 5 marks.
- Use A4 size sheets only.
- The project could be in 15–20 pages (Max)
- Must be hand written only
- Must include a creative cover page and index.
- Hard copies in File/Folders
- Innovation and Creativity also carries marks

Hindi

आप यह प्रोजेक्ट/होमवर्क कॉपी में साफ-सुथरे तरीके से बना सकते हैं:

1. अपठित गद्यांश

किसी समाचार पत्र/पत्रिका से एक गद्यांश चुनकर उसके प्रश्न-उत्तर लिखिए।

2. रचनात्मक लेखन

निम्न विषयों में से किसी एक पर 250-300 शब्दों में निबंध लिखिए:

- पर्यावरण संरक्षण
- मोबाइल का विद्यार्थियों पर प्रभाव
- समय का महत्व
- मेरा प्रिय लेखक

3. कविता संग्रह

किसी प्रसिद्ध कवि जैसे महादेवी वर्मा, सूर्यकांत त्रिपाठी निराला, हरिवंश राय बच्चन की 2 कविताएँ लिखकर उनका भावार्थ लिखें।

4- परियोजना कार्य

"हिंदी भाषा का विकास"

5-. पुस्तक समीक्षा

किसी एक हिंदी पुस्तक/उपन्यास की समीक्षा लिखिए।

उदाहरण: गोदान या गबन

यह पूरा काम सजावट, चित्रों और अच्छे हस्तलेख में करें।

Computer Science

Chapter 1: Computer System Overview

Section A – Very Short Answer Questions

1. Define computer.
2. What is hardware?
3. Define software.
4. What is an operating system?
5. Name any two input devices.

Section B – Short Answer Questions

1. Differentiate between hardware and software.
2. Explain the functions of CPU.
3. What is the difference between RAM and ROM?
4. Explain the types of software.
5. Describe the characteristics of a computer.

Section C – Long Answer Questions

1. Explain the block diagram of a computer system.
2. Discuss different types of memory in detail.
3. Explain the role of operating system in computer functioning.

Section D – Application-Based Questions

1. Why is RAM called volatile memory?
2. Explain the importance of storage devices.
3. Describe how computers are useful in education.
4. Differentiate between primary and secondary memory.
5. Explain the role of computers in communication.

Activity

Draw and label the block diagram of a computer system on a chart paper.

Chapter 2: Encoding Schemes and Number System

Section A – Very Short Answer Questions

1. What is a number system?
2. Define binary number system.
3. What is ASCII?
4. Define Unicode.
5. What is hexadecimal number system?

Section B – Short Answer Questions

1. Differentiate between decimal and binary number systems.
2. Explain binary to decimal conversion.
3. Explain decimal to binary conversion.
4. What is the importance of Unicode?
5. Differentiate between ASCII and Unicode.

Section C – Numerical Questions

1. Convert the following binary numbers into decimal:
   - $(1010)_2$
   - $(1111)_2$
2. Convert the following decimal numbers into binary:
   - $(25)_{10}$
   - $(45)_{10}$
3. Convert:
   - $(2A)_{16}$ into decimal
   - $(64)_8$ into decimal
4. Convert the following:
   - $(101101)_2$ into hexadecimal
   - $(77)_8$ into binary
5. Perform binary addition:
   - 1010 + 1101

Section D – Long Answer Questions

1. Explain different types of number systems.
2. Discuss character encoding schemes in detail.
3. Explain applications of binary numbers in computers.

Activity

Prepare a chart showing conversion among decimal, binary, octal and hexadecimal number systems.

Chapter 3: Boolean Logic

Section A – Very Short Answer Questions

1. What is Boolean logic?
2. Define logical operators.
3. What is the AND operator?
4. What is the OR operator?
5. Define NOT operator.

Section B – Short Answer Questions

1. Differentiate between AND and OR operators.
2. Explain the use of Boolean expressions.
3. What are truth tables?
4. Explain the NOT gate with an example.
5. Describe the importance of Boolean logic in computers.

Section C – Long Answer Questions

1. Explain basic logic gates with truth tables.
2. Discuss applications of Boolean logic in computer systems.
3. Explain how logical operations are performed in digital systems.

Section D – Problems Based on Boolean Logic

1. Write the truth table for:
    - A AND B
    - A OR B
2. Find the output of the following expression:
    - A + B where A = 1 and B = 0
3. Find the output of:
    - A.B where A = 1 and B = 1
4. Write Boolean expressions for the given conditions.
5. Differentiate between logical addition and logical multiplication.

Activity

Prepare truth tables for AND, OR and NOT gates on a chart paper.

Assignment Work

Case Study Questions

1. Explain the importance of computers in modern society.
2. Describe how binary language helps computers process information.
3. Explain why Python is considered a beginner-friendly programming language.

Project Work

Choose any ONE topic:

1. Evolution of computers.
2. Applications of Python in real life.
3. Number systems used in digital electronics.
4. Generations of computers.

(Project should include introduction, pictures, explanation and conclusion.)

Little Flower Children School, Kiriharapur, Ballia

My Daily Routine

Name: _____ Class: _____ Date: _____

Activity	Time Spent / Time of Day	Remarks (if any)
Wake-up Time		
Morning Routine		
Exercise / Yoga		
Breakfast		
Study Time - 1		
Short Break		
Study Time - 2		
Screen Time (TV/Mobile)		
Lunch		
Rest / Nap		
Reading / Hobby Time		
Evening Exercise / Play		
Dinner		
Family Time		
Bed Time		

One thing I enjoyed today: _____

One Good habit I followed today: _____