L.K.INTERNATIONAL SCHOOL

AFFILIATED TO CBSE

HOLIDAY HOMEWORK (2025-2026)

CLASS XII SCIENCE

Holidays are about experiences and people, and turning into what you feel like doing at that moment.

It's time to Relax, Reflect and Recharge!

Dear Parents/Students,

Kindly Note—

1. 1. Summer Break is scheduled from 1st JUNE 2025 to 30th JUNE 2025.

2. Regular classes will commence on 1st July 2025 at Usual Time.

Plan out and complete the holiday homework in time. In addition, revise the syllabus already completed.

Please complete the work and submit it to the subject teachers in the first week of opening the school. Holiday's homework has been designed with the following objectives: To keep children connected with the syllabus.· To engage children constructively.· To help students prepare projects in consultation with the subject teacher.·

NOTE-- Holiday homework will be part of the subject enrichment activity for the First Term bearing 5 marks in each subject.

Hope to see you soon

Happy summers!

ENGLISH

PROJECT LAYOUT

Cover Page with title, school details, details of students

Statement of purpose/ Objective/ Goal

Certificate of Completion under the guidance of the teacher.

Action Plan

- **3-4 lines about the project.**
- **Research Tools and Methodology.**
- **Supporting Material-AV Aids/ PPT**

Introduction of the Project

Body of the Project

- **Supporting Material**
- **Questionnaire**
- **Case Study**

REPORT

· **800-1000 word essay/script/report**

STUDENT REFLECTION

· **100-150-word paragraph about the experience and learning outcomes**

PHOTOGRAPHS

LIST RESOURCES/ BIBLIOGRAPHY

LIST OF TOPICS/THEMES

I) THE LAST LESSON- FREEDOM OF SPEECH AND EXPRESSION

- Linguistic chauvinism
- Importance of Language
- Globalization of Language
- Franco-Prussian War
- Historical References of Events wherein linguistic identity was threatened/snatched

II) LOST SPRING-LIFE IN A SLUM

- Research and case study of a slum.
- Life of the people in a slum
- Education
- Health and Infrastructure
- Government Initiatives
- Role of youth in the upliftment of the weaker sections of the society
- Comparative Study of Slums
- Slums of yesterday turned to cities of today.

III) <u>DEEP WATER- PHOBIA</u>

- Phobias and fears of people.
- Psychological and emotional impact.
- How to overcome.
- Impact on one's life and society
- Case Study

IV) <u>RATTRAP-THE STUDY OF CRIME AND CRIMINALS</u>

- Circumstances that lead to crime.
- Case Study
- Corrective Measures
- Impact of Criminal Behaviour on Society
- How to bring them into mainstream.
- Attitude of society towards criminals.

V) <u>INDIGO</u>

- Condition of Farmers in Champaran-Then and Now
- Farm Bill Agitation
- Gandhi's Contribution
- Other Political Leaders who brought about a change in the lives of farmers.
- Farmer Protection Laws in India
- Condition of Farmers in India
- Future Prospects-Growth-Suggestions

VI) <u>THE ENEMY- WAR AND PEACE</u>

- To maintain peace we need to go to war.
- Impact of War on Society
- Predicament of War
- Escapism and Depression due to war.
- Stance of the Political Lobby and Civilians.

VII) <u>SHOULD WIZARD HIT MOMMY-INSIGHT TO PARENTHOOD</u>

- Evolving Parenthood
- Problems faced by parents
- Teaching moral values
- Generation Gap
- Identity Crisis
- Role of Joint and Nuclear Families
- Dilemmas of a parent.

VIII) <u>ON THE FACE OF IT- DISABILITY</u>

- Coping with disability
- Society's attitude towards disability
- Struggles of a disabled person
- Laws for the disabled
- Government policies for the betterment of the disabled.
- Need of inclusion of the disabled in the mainstream society.

MATHEMATICS

LAB MANUAL (ACTIVITIES)

1. To draw the graph of $sin^{-1}x$, using the graph of $sin\,x$, and demonstrate the concept of mirror reflection (about the line $y = x$). (Activity-5)
2. To find analytically the limit of a function $f(x)$ at $x = c$ and also to check the continuity of the function at that point. (Activity-9)
3. To understand the concept of increasing and decreasing functions. (Activity-13)
4. To understand the concept of local minima, local maxima and the point of inflection. (Activity-14)
5. To construct an open box of maximum volume from a given rectangular sheet by cutting equal squares from each corner. (Activity-16)
6. To verify that angle in a semicircle is a right angle, using vector method. (Activity-21)
7. To measure the shortest distance between two skew lines and verify it analytically. (Activity-26)
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. (Activity-27)
9. To demonstrate a function which is not one-one but is onto. (Activity-3)
10. To demonstrate a function which is one-one but not onto. (Activity-4)

CHEMISTRY

INVESTIGATORY PROJECTS

STUDENT NAME	TOPIC
Aditya Jha ,Alka Chaudhary	Study of the presence of oxalate ions in guava fruit at different stages of ripening
Adarsh Patel, Riya Chauhan	Study of the quantity of casein present in different samples of milk-
Ashmit	Preparation of soya bean milk and its comparison with natural milk
Ashish Kumar	Study of constituents of alloys(brass and bronze)
Ayush Prajapati ,Rohit Pal	Study of the effect of Potassium bisulphite as a food preservative under various conditions
Avani Chaudhary	Comparative study of the rate of fermentation of various food materials (wheat flour, gram flour, rice, and potatoes)
Happy Nagar, Saloni Rai	Extraction of essential oils present in saunf(aniseed), ajwain(carum) and elaichi (cardamom)
Ishita Yadav	Study of common food adulterants in different foodstuffs
Jaya, Vaibhav Sharma	Preparation of rayon thread from filter paper
Lov kesh	Study of the presence of insecticides and pesticides in fruit and vegetables
Manya Chauhan	Study of the effect of metal coupling on the rusting of iron

Mohd.Ashad	Preparation of aspirin and acetaminophen
Mayank Gautam	Study on the effectiveness of different common oils in forming emulsions
Naman Goyal, Sadaf Chaudhary	Analysis of Honey
Palak ,Sparash Bhadana	Determination of caffeine in tea samples
Rihan	Study on the variation of conductance with temperature in electrolytes
Rishabh Gaur	Preparation of potash alum from scrap aluminium
Saksham Nagar	Determination of the contents of cold drinks
Sanskar Pathak ,Tuvishka	Study of Dyeing of Fabrics
Shikha, Tohid	Comparative study of commercial antacids
Shivam	Industrial preparation of ethyl alcohol
Sunny Nagar	Comparative study on the cleansing strength of different detergents
Sakshi Chauhan	Study on the alcoholic Fermentation of molasses
Shubham, Vikrant Chaudhary	Analysis of Fertilizers
Shivam Gupta	Study of the digestion of starch by salivary amylase and the effect of PH and temperature on it
Tanya Chaudhary , Niharika	Study on the preparation of pigments and poster paints
Tanuj Sharma	Study of the setting of cement
Utkarsha	Comparative study of the rate of Fermentation of various food materials (Fruit juices)
Alok Panwar	Biodiesel formation
Kashish	Chemistry in Black and White Photography

PHYSICS

INVESTIGATORY PROJECTS

1. To study various factors on which the internal resistance/EMF of a cell depends.
(Aditya Jha, Aadarsh Patel, Ashmit, Ashish Kumar, Ayush, Ayush Prajapati)

2. To study the variations in the 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 an incandescent lamp (of fixed power) used to 'illuminate' the LDR.
(Happy Nagar, Ishita Yadav , Jaya , Lovkesh ,Manya ,Mohd Ashad)

3. To find the refractive indices of (a) water, (b) oil (transparent) using a plane mirror, an equiconvex lens (made from a glass of known refractive index), and an adjustable object needle.
(Mayank Gautam , Naman Goyal ,Palak ,Rihan ,Rishabh Gaur, Sakshan Nagar

4. 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.
Shivam Gupta , Tanya Choudhary ,Tanuj Sharma , Utkarsh ,Alka, Alok panwar)

5. 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.
(Sanskar Pathak , Shikha , Shivam , Sunny Nagar , Sakshi , Shivam)

6. 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 by an A.C. source of adjustable frequency.
(Kashish, Riya Chauhan, Rohit Pal, Saloni Rai, Sadaf, Sparsh)

7. To study the Earth's magnetic field using a compass needle-bar magnet by plotting magnetic field lines and a tangent galvanometer.
(Tuvishka ,Tohid, Vaibhav ,Vikrant , Niharika)

ACTIVITIES (SECTION-A)

.1. To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse, and a power source.

2. To assemble the components of a given electrical circuit

3. To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter, and voltmeter. Mark the components that are not connected in proper order, and correct the circuit and also the circuit diagram

ACTIVITIES (SECTION-B)

1. To identify a diode, an LED, a resistor, and a capacitor from a mixed collection of such items.

2. To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab

3. To study the nature and size of the image formed by a (i) convex lens, or (ii) concave mirror, on a screen by using a candle and a screen (for different distances of the candle from the lens/mirror).

BIOLOGY

1)Make investigatory projects on-

Vikrant Chaudhary	Drugs
Vaibhav Sharma	Microbes and disease
Tohed	Cancer
Riya Chauhan	Mendelian Disorders
Tuvishka	Biotechnology and Its Application
Sparsh badhana	Reproduction in Flowering Plants
Saloni	Sex linked inheritance disease
Kashish	DNA Fingerprinting
Sadaf	-Reproductive Health
Alka chaudhary	Genetic disorder
Rohit Pal	AIDS
Niharika	Human health and disease
Rohan	Genetic disorder

HOME SCIENCE

Prepare a practical file as per the given instructions in the classroom.

1. Practical 1 (Any one)

2. Practical 2 (Poha)
3. Practical 3
4. Practical 4 (Apple Jam)
5. Practical 5(Black Pepper)
6. Practical 6 (Any one)
7. Practical 7
8. Practical 8 Two Consumer pamplets

(If any query, contact your Home Science teacher)

FASHION STUDIES

Complete these assignments from Unit -3: Elements of Fashion

1. Design products with self-generated prints inspired by nature.

2. To demonstrate creative exploration of patterns created by using food products for the dyeing process.

3. Develop print designs inspired by animal skin by innovative use of materials.

4. Stencil printing technique to create design patterns/motifs.

PHYSICAL EDUCATION

Write the following practicals in the lab manual prescribed by the school

1. Physical Fitness Test: SAI Khelo India Test.

2. Yoga:- Procedure for Asanas, Benefits, and Contraindications for any two Asanas for each Lifestyle disease.
3. Any one IOA recognised Sports/Games of your Choice. Draw a labeled diagram of Track & Field and equipment.