BIOLOGY WORKSHEET
Holiday homework
Science class 8

A. Fill in the blanks using suitable words:
1. _____ cell has a cell wall.
2. Microbes can be seen with the help of a _____.
3. _____ is an example of organelle present in both plant and animal cells.
4. Alcohol is produced with the help of _____.
5. Plant cells have _____ vacuole(s).
6. _____ of a cell is referred to as the brain of the cell.
7. _____ and Paramecium are the examples of Protozoa.
8. The function of a _____ cell is to transmit messages to the brain.
9. Different tissues join together to form a/an _____.
10. _____ are the nitrogen-fixing bacteria that live in the root nodules of legumes.

B. Write T for True and F for False:
1. All microorganisms are harmful.
2. Unicellular organisms have a one-celled body.
3. Chloroplasts are colourless plastids.
4. Salt is used as a food preservative.
5. Microbiology is the science of study of microbes.
6. Ribosomes help in protein synthesis.
7. Penicillin is added to the extracts of grapes and barley.
8. Plastids are found only in plant cells.
9. The egg cell is the longest cell.
10. Disease-causing microorganisms are called antibiotics.

C. Choose the correct option:
1. The outer wall surrounding the cell membrane of a plant cell is called:
a. cell wall b. plasma membrane c. nucleoplasm d. cytoplasm

2. The fungus commonly used in bakery and beverage industries is:
a. Penicillium b. Yeast c. Agaricus d. Rhizopus

3. The lowest level of organisation that has life is:
a. cell b. organism c. organ d. organ system

4. The medicine that kills or stops the growth of disease-causing bacteria is known as:
a. antibiotic b. antibody c. antigen d. vaccine

D. Assertion-Reason based questions:
a. Both A and R are true and R is the correct explanation of A.
b. Both A and R are true but R is not the correct explanation of A.

c. A is true but R is false.
d. A is false but R is true.

1. Assertion: Virus is considered as being on the borderline between living and non-living entities.
Reason: They do not need host for multiplication.

2. Assertion: Milk is turned into curd by bacteria.
Reason: Curd contains bacteria which promote the formation of curd.

3. Assertion: Bacterial cell walls are like plant cell.
Reason: Bacterial cell wall is not made up of cellulose.

4. Assertion: Bacteria and fungi are used to make medicines.
Reason: These medicines are used to cure viral diseases.

E. Very short-answer type questions:
1. Write the name of a bacterium that helps in the formation of curd.
2. Name two organelles present in plant cells but not in animal cells.
3. What does yeast produce during respiration?
4. Write the names of two microalgae.
5. Name the animal cell having a branched structure.
6. Write the names of two antibiotics.

F. Match the following:
Column A:
1. Lactobacillus
2. Functional unit of life
3. Control unit of cell
4. Single-celled organism
5. Bread mould
6. Robert Hooke
7. Cytoplasm
8. Outermost layer in plant cells
9. Rhizobium
10. Viruses

Column B:
a. Cell
b. Amoeba
c. Nucleus
d. Curd formation
e. Discovery of cell
f. Jelly-like substance

g. Fixing Nitrogen
h. Fungus
i. Acellular
j. Cell wall
G. Complete MDP
H. Prepare innovative project idea on theme SCIENCE AND INNOVATION FOR SUSTAINABILITY for NCSC2026-27

तत त्वन पू स अपावद्गमृ
केन्द्रीव विद्यालव संगठन

PM SHRI KENDRIYA VIDYALAYA
CRPF BIJNOUR, LUCKNOW

SHIFT-2

SUMMER HOLIDAY HOMEWORK

ENGLISH

CLASS VIII

READ • LEARN • EXPRESS • GROW

A READING SKILLS

Read any 3 chapters from your Poorvi textbook.

For each chapter, write:

- Title
- Author (if given)
- Characters
- Summary (100–120 words)
- Message / Moral

B WRITING SKILLS

1. **Paragraph Writing (any 3)**
   (100–120 words each)
   - Importance of Trees
   - My Favourite Book
   - A Memorable Journey
   - Role of Technology in Our Life
   - My Aim in Life



2. **Letter Writing**
   Write a letter to your friend describing:
   "How you are spending your summer vacation"
3. **Diary Entry**
   Write a diary entry about:
   "The happiest day of your holidays"

C GRAMMAR PRACTICE

1. **Parts of Speech**
   Write 3 examples each of:
   - Noun
   - Pronoun
   - Verb
   - Adjective
   - Adverb
   - Preposition
   - Conjunction
2. **Tenses**
   Write 5 sentences each in:
   - Present Tense
   - Past Tense
   - Future Tense
3. **Active and Passive Voice**
   Change the voice:
   - Ram wrote a letter.
   - She is reading a book.
   - They will finish the work.
4. **Direct and Indirect Speech**
   Change into indirect speech:
   - He said, "I am tired."
   - She said, "I will help you."

D CREATIVE WORK

1. **Vocabulary Builder**
   Learn and write 15 new words.
   Write meaning + sentence for each.
2. **Poster Making**
   Make a poster on:
   - Save Environment
     OR
   - Importance of Cleanliness



3. **Story Writing**
   Write a story using the hint:
   "Honesty is the best policy"

E SPEAKING ACTIVITY

Prepare a short speech (1–2 minutes) on:

- Importance of Education
  OR
- My Favourite Teacher









GENERAL INSTRUCTIONS

- Do your homework neatly and on your own.
- Use A4 sheets / Notebook as required.
- Make it creative and colorful.
- Submit on the opening day after the vacation.

BE CREATIVE!
BE ORIGINAL!
DO YOUR BEST!

केन्द्रीय विद्यालय संगठन
तत त्वं पूषन अपावृणु

KENDRIYA VIDYALAYA GRPF BIJNOR LUCKNOW



CLASS VIII

MDP



TODAY'S DATE
24 APRIL 2026

TERM 1

SESSION
2026-27

TOPIC: SUSTAINABLE ENERGY – POWERING OUR FUTURE

WHAT YOU HAVE TO DO (BLUEPRINT)

Prepare a project file (A4 sheets) in the following order:

1. **COVER PAGE**
   - Topic name
   - Student's Name
   - Class, Section, Roll No.
2. **INTRODUCTION (5–6 LINES)**
   - What is energy?
   - Why is sustainable energy important?
   - Why should we save energy?
   - Add one real-life example
3. **SCIENCE**
   - Conventional vs. Renewable energy sources
   - Types of renewable energy (solar, wind, hydro, biomass, geothermal, tidal)
   - Advantages of renewable energy
4. **SST**
   - Energy consumption in India and the world
   - Role of government and initiatives
   - Case study (e.g., International Solar Alliance)
   - Compare renewable vs non-renewable energy usage in India
5. **ENGLISH**
   - Paragraph (100–120 words) on "Sustainable Energy"
   - 3 catchy slogans
6. **HINDI** क
   - ऊर्जा संरक्षण पर 5–6 वाक्य लिखिए।
   - नवीकरणीय ऊर्जा के लाभ पर अपने विचार लिखिए।
7. **SANSKRIT** ॐ
   - ऊर्जा संरक्षण पर 3–5 वाक्य संस्कृत में लिखिए।
8. **MATHS**
   - Collect data on electricity consumption at home/school
   - Represent it using bar graph or pie chart (optional)
   - Calculate percentage of energy saved
9. **ART**
   - Draw/Colour a poster on "Clean Energy, Green Future"
10. **VOCATIONAL SKILLS**
    - Make a working model of a solar oven / solar car / windmill (any one)
11. **PHYSICAL EDUCATION**
    - 5 lines on how energy conservation helps in healthy living
    - 2–3 physical activities that save energy
12. **AI (ARTIFICIAL INTELLIGENCE)**
    - Write 2–3 points on how AI can help in energy efficiency (e.g., smart grids, energy monitoring apps)
13. **LIBRARY**
    - Name of one book/article on sustainable energy
    - 4–5 lines summary
14. **MUSIC**
    - Write or learn a short song/rap on "Save Energy"
15. **LIFE SKILLS/ HOME ACTIVITY**
    - Write 5 ways you save electricity at home
16. **CONCLUSION (4–5 LINES)**
    - What did you learn from this project?
    - How will you apply it in daily life?
    - Suggest one solution for your city

★ **FINAL PAGE (COMPULSORY):**
"My Energy Smart City Plan" (diagram + 5 lines)



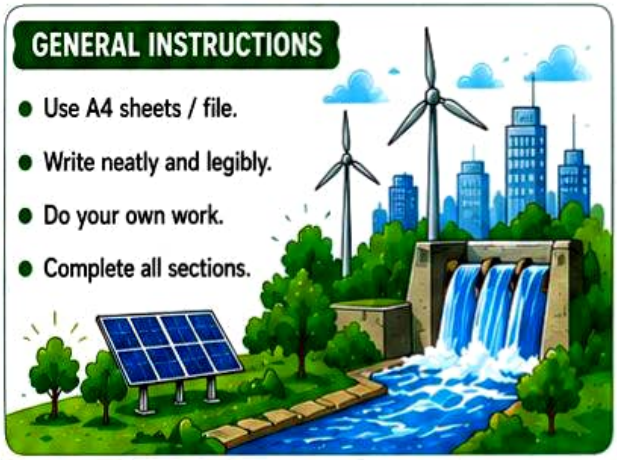
PRESENTATION INSTRUCTIONS

- ★ Make your project colourful and creative.
- ★ Use sketch pens, crayons, colourful sheets and pictures.
- ★ Add borders, headings, diagrams and illustrations.
- ★ Make it neat, attractive and well-organised.



GENERAL INSTRUCTIONS

- Use A4 sheets / file.
- Write neatly and legibly.
- Do your own work.
- Complete all sections.



MARKS DISTRIBUTION (20 MARKS)

CONTENT 5 MARKS	CREATIVITY 5 MARKS
PRESENTATION / NEATNESS 5 MARKS	ACTIVITY / COMPLETENESS 5 MARKS

IMPORTANT

✗ Incomplete work will not be accepted.

SUBMIT BEFORE
30 JUNE 2026



BENEFITS OF SUSTAINABLE ENERGY



TYPES OF RENEWABLE ENERGY



तत् त्वं पूषन अपावृणु

PM SHRI KENDRIYA VIDYALAYA
CRPF BIJNAUR (SHIFT-2)

ART EDUCATION PORTFOLIO

(SESSION 2026-27)

Name: _____
Class: _____
Section: _____
Roll No.: _____
School Name: _____
Subject: Art Education

CLASS VIII – ART EDUCATION
HOLIDAY HOMEWORK

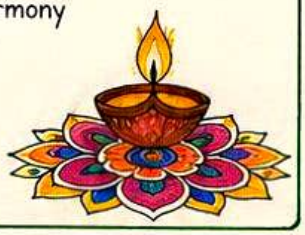
DRAWING WORK

- City Life
- Landscape Painting



THEORY WORK

- Principles of Design: Balance, Contrast, Harmony
- Indian Art: Rangoli – त्योहारों में बनायी जाती है.



PORTFOLIO

- Theory Work
  Elements + Principles of Art (Detail में)
- Indian Art Forms:
  Madhubani, Warli, Rangoli

ELEMENTS OF ART

- LINE
- SHAPE
- FORM
- COLOUR
- TEXTURE
- SPACE
- VALUE

PRINCIPLES OF DESIGN

- BALANCE
- CONTRAST
- HARMONY
- UNITY
- RHYTHM
- EMPHASIS
- PROPORTION

INDIAN ART FORMS

- MADHUBANI
- WARLI
- RANGOLI

FAMOUS ARTISTS

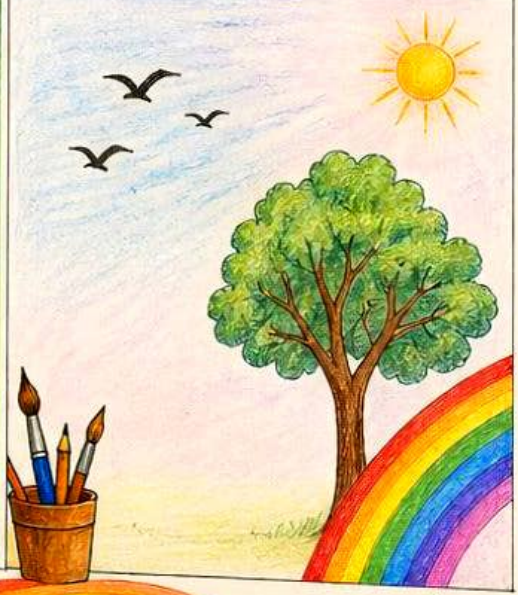
★ RAJA RAVI VARMA
Famous for his mythological paintings.

★ M. F. HUSAIN
Known for his modern and abstract artworks.

★ LEONARDO DA VINCI
A great artist, inventor and scientist.

SKETCH – RAJA RAVI VARMA





KENDRIYA VIDYALAYA CRPF BIJNAUR LUCKNOW (SHIFT-II)

तत् त्वं पूषन अपावृणु
केन्द्रीय विद्यालय संगठन

SUMMER VACATION HOLIDAY HOMEWORK

(SESSION: 2026-2027)

CLASS: VIII | **SUBJECT: - VOCATIONAL EDUCATION (VE)**



Objective: To develop basic life skills and self-help habits.

Focus: Learning by doing, creativity, and real-life skill development.

Activities:

1. Household Responsibility Task

- Take responsibility for one task for 10 days.
- Write your experience.



2. Mini Budget Plan

- Prepare a weekly budget with income and expenses of your family.



3. Creative Project (Choose Any Two)

- Make a useful object from recyclable materials (it must be of your interest).
- Make a pen stand / paper box or toy using waste material.
- Make a paper lamp / chess board.
- Make a paper wall-hanging / hanging decoration.
- Make a project model of your interest.

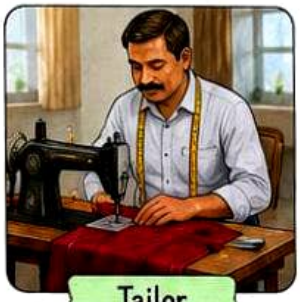


4. Skill Observation Report

- Observe a skilled person and write detailed notes (skills, tools, importance).


Cook


Mechanic


Tailor


Carpenter

General Instructions:

- Maintain neat and clean work.
- Use a separate notebook/file.
- Include drawings, pictures, and creativity.
- Submit after vacation.

PM SHRI K V CRPF BIJNAUR LUCKONW SHIFT II SUMMER HOLIDAY HOME WORK FOR CLASS VIII KHEL YATRA WRITE IN NOTE BOOK

Unit 1: Foundations of physical education and well being-

- Horse Vault Race
- Progressive Mass Drill
- Baraf Pani • Char Tali
- Conduction Relay
- .• Motion in Action Relay
- Flex and React Challenge
- Move like a Machine
- Adapt and Achieve

Unit 2: Physical And Motor Fitness –

- Crawl To Front
- Rock Paper Championship Run
- Modified Triathlon Activity

UNIT :6 Yoga : Chapter 1

- Yoga for Daily Life ,

1:15 pm

Class 8 computer summer vacation homework :

You have to make a PowerPoint presentation using different decorative tools such as slide animation, slide transitions, background change, word art, image or video insertion etc .

The topic for the presentation is Algorithms.(Also put 3-4 examples in it)

You have to print 4-6 slides (black and white will also do) on single paper and bring the whole presentation in printed form after vacation for submission. The good presentations after shortlisting will be shown in the class using presentation’s soft copy.

PM SHRI KV CRPF BIJNAUR LUCKNOW

Holiday Homework

Class 8 | Social Science (Exploring Society: India and Beyond)

CHAPTER 3: THE RISE OF THE MARATHAS

Summary: Foundation and Expansion

The rise of the Marathas in the 17th century was a transformative event in Indian history. Led by **Chhatrapati Shivaji Maharaj** , the Marathas successfully challenged the mighty Mughal Empire and the Adil Shahi Sultanate. Shivaji established **Swarajya** (self-rule) by emphasizing regional identity and religious tolerance. Following his era, the **Peshwas** expanded the empire across North and Central India, making the Marathas the dominant power in the 18th century.

Summary: Military and Administration

The Maratha military success was rooted in **Guerrilla Warfare** (Ganimi Kava), allowing them to defeat larger armies. Shivaji Maharaj, known as the 'Father of Indian Navy', secured the coastline with a strong naval force. Administratively, the **Ashtapradhan** (eight ministers) ensured justice and efficiency. The state revenue was supported by **Chauth** and **Sardeshmukhi** , ensuring a robust treasury.

EXPLORATORY QUESTIONS

1. **How did the unique geography of the Deccan contribute to the success of Maratha military tactics?**
2. **If you were an advisor to Shivaji Maharaj, what strategic importance would you assign to building sea forts?**
3. **In what ways did the concept of 'Swarajya' differ from the imperial rule of the Mughals?**
4. **Evaluate the role of the 'Ashtapradhan' in preventing centralized corruption.**
5. **Analyze the transition of power from the Chhatrapatis to the Peshwas. How did it change the empire's direction?**
6. **How did the collection of Chauth impact the relationship between the Marathas and their neighboring states?**
7. **Imagine you are a diplomat in the 18th century. How would you describe the Maratha rise [illegible] traveler?**
8. **What was the significance [illegible] ion of Shivaji Maharaj in terms of political legitimacy.**

9. Discuss the contribution of the Bhakti movement in providing a social foundation for the Maratha rise.
10. Why was the Maratha navy essential in checking the influence of European colonial powers?
11. Evaluate the effectiveness of the Maratha hill forts during prolonged sieges.
12. How did the Marathas manage agricultural productivity while maintaining constant military vigilance?
13. Analyze the administrative responsibilities of the 'Peshwa' and the 'Amatya' in the Maratha state.
14. What were the primary reasons for the Maratha expansion into North India under Baji Rao I?
15. How did the Marathas handle the challenge posed by the Siddi of Janjira?
16. Describe the impact of the Third Battle of Panipat on the Maratha confederacy's internal unity.
17. How did the Maratha system of justice cater to the needs of the common peasantry?
18. Examine the role of the 'Bakhars' in shaping the historical narrative of the Marathas.
19. In what ways did Shivaji Maharaj promote the Marathi language and local culture?
20. Based on your reading, what were the most significant administrative reforms introduced by Shivaji Maharaj?

CHAPTER 4: THE COLONIAL ERA IN INDIA

Summary: European Arrival and Competition

The colonial era began with the search for sea routes to India by European powers like the **Portuguese, Dutch, French, and British** . Initially traders of spices and silk, these companies soon turned into political rivals. Through naval superiority and strategic alliances, the British East India Company eventually outcompeted its European rivals, setting the stage for centuries of colonial rule.

Summary: From Traders to Rulers

Decisive military victories at the **Battle of Plassey (1757)** and the **Battle of Buxar (1764)** transformed the British from merchants to revenue collectors (Diwans). Policies like the **Drain of Wealth** systematically depleted India's resources. Harsh land revenue systems like the Permanent Settlement devastated the Indian peasantry, turning once-prosperous regions into poverty-stricken lands.

ANALYTICAL QUESTIONS

1. **How did the Industrial Revolution in Britain fundamentally change the nature of trade with India?**

2. Analyze the reasons behind the rapid decline of Indian handicrafts after the arrival of machine-made goods.
3. Compare the trading strategies of the Portuguese in the 16th century with the British in the 18th century.
4. Why was the 'Diwani' of Bengal considered the turning point for British political power in India?
5. Evaluate the impact of the 'Drain of Wealth' theory as propounded by Dadabhai Naoroji.
6. How did the British use the policy of 'Divide and Rule' to manipulate Indian princely states?
7. In what ways did the introduction of cash crops lead to frequent famines in colonial India?
8. Imagine you are an Indian artisan in the late 18th century. Describe the changes in your livelihood.
9. Analyze the consequences of the Permanent Settlement on the relationship between peasants and landlords.
10. What role did sea power play in the eventual dominance of the British over the French in India?
11. How did the British justify their colonial expansion under the guise of 'civilizing' India?
12. Examine the effects of the Doctrine of Lapse on the map of the Indian subcontinent.
13. Discuss the social and cultural changes brought about by the arrival of Christian missionaries and Western education.
14. How did the monopoly of the East India Company affect the native Indian mercantile class?
15. Why were the British so focused on controlling the supply of raw cotton and indigo from India?

16. Evaluate the economic motives behind the development of railways and telegraphs in colonial India.

17. Analyze the factors that led to the transformation of Bengal from 'Paradise to Hell' under Company rule.

18. In what ways did the British legal system differ from the traditional village panchayats?

19. Describe the early signs of native resistance against the British before the major revolt of 1857.

20. Based on the chapter, what were the most significant long-term economic impacts of British rule on India?

Creative Scholars Project

Task 1: Design a 'Colonial Trade Map' showing the major commodities exported from India to Europe and the regions they originated from during the 18th century.

Task 2: Write a 200-word imaginative dialogue between an Indian farmer and a British revenue officer discussing the impact of the Permanent Settlement.

पीएम श्री केन्द्रीय विद्यालय सी आर पी एफ बिजनौर लखनऊ

ग्रीष्मकालीन-अवकाशीयं परियोजना कार्यम्

कक्षा – 8 विषय- संस्कृत

सत्र-2026-27

कक्षा अष्टमी

1. वारि तथा राजन् (राजा) शब्दों के पुल्लिंग शब्द रूप लिखिए
2. कक्षा में कराए गए कार्य को याद करें।
3. गम (जाना) धातु के पांचों लकारों में धातुरूप लिखिए।
4. संस्कृत में छात्र प्रतिज्ञा लिखिए और याद कीजिए।
5. सदाचार अथवा विद्या के महत्व पर पांच श्लोक लिखिए ।
6. कोई पांच श्लोक लय के साथ याद करें।
7. 100 तक संस्कृत संख्या याद कीजिए ।

Ist Week

PM SHRI KV CRPF BIJNAUR, LUCKNOW – 2026-27

Class - VIII

Summer Vacation Home Work

SECTION A : CUBES AND CUBE ROOTS

1. Writ the Square of the numbers from 1 to 30.
2. Writ the Cube of the numbers from 1 to 20.
3. Find square root of following numbers by Repeated subtraction method
   $\sqrt{36}$, $\sqrt{100}$, $\sqrt{225}$, $\sqrt{400}$.
4. Find square root of following numbers by Prime factorization method.
   $\sqrt{64}$, $\sqrt{144}$, $\sqrt{256}$, $\sqrt{441}$, $\sqrt{676}$.

IInd Week

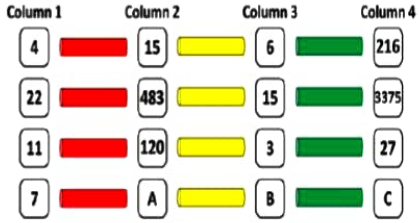
5. Find cube root of following numbers by Prime factorization method.
   $\sqrt[3]{64}$, $\sqrt[3]{1000}$, $\sqrt[3]{512}$, $\sqrt[3]{729}$, $\sqrt[3]{1728}$
6. Find the smallest square number that is divisible by each of the following numbers: 4, 9, and 10.
7. How many numbers lie between the squares of the following numbers?
   (i) 16 and 17 (ii) 99 and 100
8. State true or false. Explain your reasoning.
   (i) The cube of any odd number is even.
   (ii) There is no perfect cube that ends with 8.
   (iii) The cube of a 2-digit number may be a 3-digit number.
   (iv) The cube of a 2-digit number may have seven or more digits.
   (v) Cube numbers have an odd number of factors.

IIIrd Week

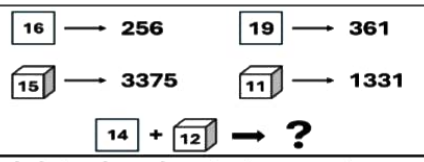
9. Make magic square of 5 x 5 from 1 to 25 numbers.
10. Make magic square of 7 x 7 from 1 to 49 numbers.

IVth Week

11. **The image below shows a logic machine, where numbers move from Column to Column (starting from column 1 as input and reach column 4) through the tunnel, where they change in a different way, each time. What would be the sum of A, B, and C?**



13. Each geometrical shape denotes a certain operation. What will come in place of "?"



Vth Week

12. Draw different types of quadrilaterals and write its properties.

VIth Week

SECTION B : Power Play

Evaluate Using Laws of Exponents

Questions:

- $(10^5 \div 10^2)$
- $(6^2 \times 6^3) \div 6^4$
- $(8^5 \div 8^3) \times 8^2$
- $(9^4 \times 9^2) \div 9^3$
- $(4^3 \times 4^5) \div 4^6$
- $(11^2 \times 11^3) \div 11^4$

Express in standard form

Questions:

- **0.000007286**
- **0.00045**
- **0.00678**
- **0.00089**
- **0.0000032**
- **0.00901**

SECTION C : Project Work

Write about any one Indian M[illegible] [illegible]vabhata / Ramanujan / Brahmagupta)

- **Introduction**
- **Contributions**
- **Interesting Facts**

केंद्रीय विद्यालय सी.आर.पी.एफ. बिजनौर

लखनऊ

(ग्रीष्मकालीन अवकाश कार्य)

<u>कक्षा – आठवीं</u>

1. निम्नलिखित उपसर्गों से दो-दो शब्दों की रचना कीजिए

    1. अति ....
    2. उप ....
    3. प्रति ....
    4. सम ....
    5. परि ....

2.निम्नलिखित प्रत्ययों से दो-दो शब्दों की रचना कीजिए

1. आई ....

2. ता ....

3. दार ....

4. ईय ....

5. त्व ....

3. नारी शिक्षा पर दिए गये बिन्दुओं के आधार पर अनुच्छेद लिखिए (150 शब्द)

(प्रस्तावना, प्राचीन भारत में महिला शिक्षा, वर्तमान में महिला शिक्षा, महिला शिक्षा का प्रचार)

4. बस कंडक्टर से वार्तालाप का संवाद लेखन लिखिए ।

5. आप अपनी किसी यात्रा के खट्टे –मीठे अनुभवों को याद करते हुएं एक लेख लिखिए|

6. प्रतिदिन समाचार का वाचन करेंगे।

7. **आप अनुपमा अनुपम हैं। आपके क्षेत्र को मुख्य सड़क से जोड़ने वाली सड़क पर लाइटें ख़राब हो गईं हैं, जिससे दुर्घटना की आशंका बढ़ गई है। इस ओर ध्यान आकर्षित करते हुए सार्वजनिक लोक निर्माण विभाग लगभग 100 शब्दों में पत्र लिखिए।**