

**PM SHRI KENDRIYA VIDYALAYA NO. 1, RAIPUR**  
**AUTUMN BREAK HOME ASSIGNMENTS**  
**CLASS X | SESSION 2026-27**

**Name:** \_\_\_\_\_  
Roll No.: \_\_\_\_\_ Section: \_\_\_\_\_

**SUBJECT ORDER**

English • Hindi • Sanskrit • Mathematics • Science • Social Science

# ENGLISH

## AUTUMN BREAK HOME ASSIGNMENT – CLASS X ENGLISH

1. Portfolio: Complete your English Portfolio as per the format shared, if you have not completed or submitted it yet.
2. Read the lesson from the Supplementary Reader (SR), “The Book That Saved the Earth”, and write the summary, the main characters and their traits, the theme, and the moral of the play.
3. Prepare for the Monthly Test of October 2026.
4. Complete your notebook and keep it ready for correction immediately after the break.

**Note: All work should be neat, creative, original, and properly presented.**

# हिंदी

## शरदकालीन अवकाश गृहकार्य – कक्षा 10 (विषय: हिंदी)

1. (कृतिका) “मैं क्यों लिखता हूँ” पाठ को ध्यानपूर्वक पढ़कर उसका सारांश अपने शब्दों में लिखिए।
2. (अलंकार) उपमा, रूपक, उत्प्रेक्षा, मानवीकरण एवं अतिशयोक्ति अलंकार के पाँच-पाँच उदाहरण लिखिए।
3. (पद-परिचय) पद-परिचय समझते हुए पद-परिचय के दस उदाहरण लिखिए।
4. एक अनुच्छेद, एक ई-मेल तथा एक औपचारिक पत्र लिखिए।
5. पूर्व में दिए गए हिंदी पोर्टफोलियो का कार्य एवं हिंदी नोटबुक का कार्य पूरा कीजिए।

## संस्कृत

### शरदकालीन अवकाश गृहकार्य – कक्षा दशमी (विषय: संस्कृत)

1. संस्कृत Student Support Material (SSM) से कोई तीन अपठित गद्यांश लिखकर उन पर आधारित प्रश्नों के उत्तर लिखिए।
2. SSM से तीन चित्र-वर्णन कीजिए।
3. दो औपचारिक तथा दो अनौपचारिक पत्र लिखिए।
4. SSM से दो संवाद-पूर्तियाँ कीजिए।

**निर्देश:** सारा कार्य संस्कृत की नोटबुक में कीजिए।

# MATHEMATICS

## AUTUMN BREAK HOME ASSIGNMENT – CLASS X MATHEMATICS

**Note:** The source material labels this section “Winter Break Home Work”; it has been standardized to “Autumn Break Home Assignment” to match this compiled document.

### Chapter 1: Real Numbers

**Q1.** Find the greatest number that divides 281 and 1249, leaving remainders 5 and 7 respectively.

**Q2.** Can the number  $(15)^n$ , where  $n$  is a natural number, end with the digit 0? Give reasons.

**Q3.** Prove that  $5 - 2\sqrt{3}$  is an irrational number.

**Q4.** Explain why  $7 \times 11 \times 13 + 13$  and  $7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 + 5$  are composite numbers.

**Q5.** In a teachers’ workshop, the numbers of teachers teaching French, Hindi and English are 48, 80 and 144 respectively. Find the minimum number of rooms required if the same number of teachers are seated in each room and all teachers in a room teach the same subject.

### Chapter 2: Polynomials

**Q6.** Find the zeroes of the polynomial  $p(x) = 6x^2 - 5x - 1$  and verify the relationship between the zeroes and its coefficients.

**Q7.** Find the zeroes of the polynomial  $p(x) = x^2 - 32x + 4$  and verify the relationship between the zeroes and its coefficients.

### Chapter 3: Pair of Linear Equations in Two Variables

**Q8.** Determine graphically whether the following pair of linear equations has a unique solution or infinitely many solutions:  $2x + 3y = 12$  and  $x - y = 1$ .

**Q9.** A fraction becomes  $\frac{3}{4}$  if 2 is added to the numerator and 1 is added to the denominator. If 2 is subtracted from the numerator and 1 is subtracted from the denominator, it becomes  $\frac{1}{2}$ . Find the fraction.

Case-study-based question

**Q10. Case-study-based question:** The question/data/figure was not included in the supplied material. Complete this question using the original worksheet or teacher’s instructions.

Chapter: Circles

**Q11. Circles:** The question/figure was not included in the supplied material. Complete this question using the original worksheet or teacher’s instructions.

Chapter: Triangles

**Q12. State and prove Thales’ theorem (Basic Proportionality Theorem).**

Chapter: Statistics

**Q13. Find the mean, mode and median for the given data. The data/table was not included in the supplied material; use the data provided by your teacher.**

# SCIENCE

## AUTUMN BREAK HOME ASSIGNMENT – CLASS X SCIENCE

1. Show the formation of a covalent bond in a nitrogen molecule.
2. What is a hydrocarbon?
3. What type of bond is formed between carbon and hydrogen?
4. What is structural isomerism? Draw the two structural isomers of butane.
5. Write the molecular formula of benzene and draw its structure.
6. State the number of single and double covalent bonds present in a molecule of benzene.
7. Give a reason why carbon can neither form a  $C^{4+}$  cation nor a  $C^{4-}$  anion.
8. Mendel crossed a pure tall pea plant (TT) with a pure short pea plant (tt) and obtained all tall plants in the  $F_1$  generation.
  - (a) What is the gene combination present in the plants of the  $F_1$  generation?
  - (b) Give a reason why only tall plants are observed in the  $F_1$  progeny.
  - (c) What will be the ratio of the plants obtained in the  $F_2$  generation when  $F_1$  plants are self-pollinated?
9. Giving two examples, justify the statement that the sex of offspring in all animals is not always genetically determined.
10. Differentiate between the sex chromosomes of human males and females.

# SOCIAL SCIENCE

## AUTUMN BREAK HOME ASSIGNMENT – CLASS X SOCIAL SCIENCE

### SECTION A: ART-INTEGRATED PROJECT

Theme: Chhattisgarh and Kerala – A Comparative Study

Prepare an illustrated project comparing Chhattisgarh and Kerala. Use information from NCERT Social Science textbooks and add relevant pictures, drawings, maps or charts.

Answer the following questions as part of your project:

1. Locate Chhattisgarh and Kerala on an outline map of India.
2. Compare the physical features and climate of the two states.
3. Compare their major crops and agricultural practices.
4. Describe any two traditional art forms, festivals or cultural practices of each state.
5. Explain how natural resources support the livelihoods of people in these states.

**Art integration: Decorate the project using Warli/Gond-inspired art from central India and Kerala mural-art-inspired designs. Label the artwork and mention the state associated with it.**

### SECTION B: MAP LOCATING AND LABELLING

#### Q1. History – Nationalism in India

On an outline political map of India, locate and label the following places:

- (a) Calcutta – Indian National Congress Session, September 1920
- (b) Nagpur – Indian National Congress Session, December 1920
- (c) Madras – Indian National Congress Session, 1927
- (d) Champaran – Satyagraha movement
- (e) Kheda – Satyagraha movement
- (f) Ahmedabad – Mill workers' Satyagraha
- (g) Amritsar – Jallianwala Bagh
- (h) Dandi – Place associated with the Salt March

#### Q2. Geography – India: Resources and Development

On an outline map of India, identify and label the major soil types as shown in the NCERT textbook.

#### Q3. Geography – Water Resources

Locate and label the following dams on an outline map of India: (a) Salal, (b) Bhakra Nangal, (c) Tehri, (d) Rana Pratap Sagar, (e) Sardar Sarovar, (f) Hirakud, (g) Nagarjuna Sagar, and (h) Tungabhadra.

#### Q4. Geography – Agriculture

On an outline map of India, mark the major areas of rice and wheat production. Also identify the major producer states of: (a) sugarcane, (b) tea, (c) coffee, (d) rubber, (e) cotton, and (f) jute.

#### Q5. Geography – Minerals and Energy Resources

On an outline map of India, locate and label the following:

Iron ore mines: Mayurbhanj, Durg, Bailadila, Bellary and Kudremukh.

Coal mines: Raniganj, Bokaro, Talcher and Neyveli.

Oil fields: Digboi, Naharkatia, Mumbai High, Bassien, Kalol and Ankaleshwar.

Thermal power plants: Namrup, Singrauli and Ramagundam.

Nuclear power plants: Narora, Kakrapar, Tarapur and Kalpakkam.

### SECTION C: INTERDISCIPLINARY PROJECT

Topic: The Making of a Global World – From Local Markets to Global Connections

Prepare a project explaining how countries and people are connected through trade, transport, technology and the movement of goods.

Include the following:

1. Explain the meaning of globalisation in simple words.
2. Describe how the movement of goods and people connected different parts of the world in the past.
3. Explain how international trade connects producers and consumers today.
4. Choose one everyday product, such as a mobile phone, tea or a garment. Trace its journey from production to the consumer.
5. Explain two benefits and two challenges of global connections for India.

**Interdisciplinary connections:**

- History: Development of trade and connections between countries.
- Geography: Transport routes and the movement of goods.
- Economics: Production, markets, trade and consumers.
- English: Write a short report with a suitable title and conclusion.

Presentation: Use a world map, pictures, flowcharts or a simple product-journey diagram. Write the project in your own words and mention the sources used.

**Q6. Geography – Manufacturing Industries**

Locate and label Mumbai, Indore, Surat, Kanpur and Coimbatore (cotton textile industries); Durgapur, Bokaro, Jamshedpur, Bhilai, Vijayanagar and Salem (iron and steel plants); and the prescribed software technology parks.

**Q7. Geography – Lifelines of National Economy**

Locate and label the major sea ports and international airports listed in the NCERT chapter.

**IMPORTANT INSTRUCTIONS**

1. Do all map work on separate political maps of India.
2. Do one topic on one sheet.
3. Complete locating and labelling only as prescribed in the CBSE Curriculum 2026–27.
4. After completing the work, staple all sheets together.
5. Write your name, roll number, class and section on the first sheet.