PM SHRI KV NO.1 JHANSI CANTT, AGRA REGION
Class – 9
Holiday homework

English

1) Write a letter to Editor drawing their attention towards the rising problem of encroachment in your city .

2) Make a poster for a "Career Mela" to be organised in your school.

3) Write an article on the topic" Skills creats vocations".

4) Write a story beginning with " It was a beautiful lovely, morning....

5) Solve only grammar portion from 5 sample papers.

All this has to be done in fair notebook only.

Portfolio has to be prepared separately in a file in proper format, cover page.

Hindi

प्रश्न 1 उपसर्ग और प्रत्यय की परिभाषा बताते हुए उनमें अन्तर उदाहरण सहित समझाइए।
प्रश्न 2 संज्ञा, सर्वनाम, विशेषण और क्रिया की परिभाषा बताते हुए उसके भेद उदाहरण सहित समझाइए।
प्रश्न 3 वाक्य की परिभाषा बताते हुए अर्थ के आधार पर उसके भेद व दो-दो उदाहरण लिखकर समझाइए।
प्रश्न 4 अलंकार की परिभाषा बताते हुए अनुप्रास, यमक और श्लेष अलंकार के बारे में बताते हुए दो-दो उदाहरण लिखकर समझाइए।
प्रश्न 5 अपने मित्र को निबंध प्रतियोगिता में प्रथम आने पर बधाई देते हुए एक पत्र लिखिए।
प्रश्न 6 विद्यालय के प्राचार्य को खेल सामग्री उपलब्ध कराने हेतु एक प्रार्थना पत्र लिखिए।
प्रश्न 7 बस यात्रा के दौरान दो मित्रों (राम व श्याम) के बीच की गई बातचीत को 80 शब्दों में एक संवाद लिखिए।
प्रश्न 8 निम्नलिखित सभी विषयों पर संकेत बिंदुओं के आधार पर लगभग 120-120 शब्दों में अनुच्छेद लिखिए :
(i) साइबर सुरक्षा : जागरूकता ही समाधान
***साइबर सुरक्षा का अर्थ *वर्तमान में चर्चा का कारण *जागरूकता का प्रभाव**
(ii) स्वस्थ जीवन-शैली - *स्वस्थ जीवन-शैली की आवश्यकता
***स्वस्थ आदतें जिनका पालन किया जाना चाहिए *स्वस्थ जीवन-शैली के लाभ**
(iii) एक यादगार पारिवारिक अवकाश –
***कैसे मनाया? *यादगार क्यों है? * पारिवारिक अवकाश का महत्त्व**

Science

1. Prepare a 3D model of any one of the following - 1.Prokaryotic cell 2.Plant cell 3.Animal cell 4.Mitochondria 5. Plastid 6.Nucleus

2. Complete the practicals as per the list provided by CBSE

3. Explore ideas to participate in Science Exhibition, INSPIRE AWARD and NCSC (National Children Science Congress).

4. Write the functions and draw labelled diagrams of the following cell organelles –

Mitochondria,

Golgi Apparatus,

Endoplasmic reticulum,

Chloroplast and

Nucleus.

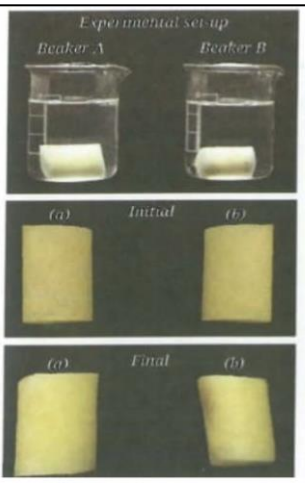
5.Make a chart on any topic from new science NCERT Book.

6. Take print of the following worksheet and write the answers in science notebook.

WORKSHEET –

CASE BASED QUESTIONS CLASS 9 CELL: A BUILDING BLOCK OF LIFE

Q1: Read the source below and answer the questions that follow:



Experimental set-up, and initial andfinal states of potato pieces in (a) plain water, and (b) 20 per cent salt solution

Ananya was performing a science experiment in her school laboratory. She took two equal-sized pieces of potato. She placed one piece in plain water (Beaker A) and another piece in 20 per cent salt solution (Beaker B). After one hour, she observed that the potato piece in Beaker A had swollen and become firm, while the potato piece in Beaker B had shrunk and become soft. Her teacher explained that this happened because the cell membrane of potato cells is selectively permeable and allows water to move in and out depending on the concentration of the surrounding solution.

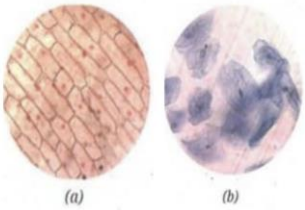
(a) Name the process by which water moves through a selectively permeable membrane from a region of higher water concentration to lower water concentration. (1 mark)

(b) Explain why the potato piece in Beaker A swelled while the piece in Beaker B shrank. Name the type of solution each beaker represents with respect to the cell. (2 marks)

(c) What would happen if mung bean seeds are kept in a concentrated salt solution for 12 hours? Give reason. (1 mark)

(d) What is diffusion? How is it different from osmosis? (1 mark)

Q2: Read the source below and answer the questions that follow:



(a) The onion peel cells, and (b) human cheek cells

Vikram was observing slides under a school microscope. He prepared one slide from an onion peel and another slide by scraping the inner surface of his cheek. He stained the onion peel slide with safranin and the cheek cell slide with methylene blue. Under the microscope, he noticed that onion peel cells were box-shaped and regularly arranged, while cheek cells were irregularly arranged and could easily change shape. He also noticed that when he placed the onion peel in a concentrated sugar solution for 30 minutes and observed it again, the inner content of the cells shrank but the outer boundary remained the same.

(a) Why did the onion peel cells retain their outer boundary even after being placed in concentrated sugar solution, while the cheek cells placed in the same solution shrank completely? (1 mark)

(b) Name the additional layer present in plant cells but absent in animal cells. State two functions of this layer. (2 marks)

(c) What is the primary chemical component of the plant cell wall? State one role it plays in human diet. (1 mark)

(d) Why are animal cells like cheek cells irregularly shaped and flexible? How does this flexibility help animals? (1 mark)

Q3: Read the source below and answer the questions that follow:

Sahil was reading about cell organelles and imagined a cell as a tiny living factory. His teacher explained that just like a factory has different departments - a power unit, a packaging department, a cleaning unit, and a control room - a cell also has different organelles each performing a specific job. The teacher described one organelle as the 'powerhouse of the cell' because it supplies energy for most cellular activities. Another organelle was described as the 'packaging and shipping centre' that modifies, sorts, and packages proteins into vesicles for transport or secretion. A third organelle was called the 'clean-up system' of the cell because it breaks down unwanted proteins, carbohydrates, fats, and damaged parts of the cell.

(a) Name the organelle called the 'powerhouse of the cell.' In which form does it store the energy it produces? (1 mark)

(b) Name the 'packaging and shipping centre' of the cell. Describe its structure and explain how it is functionally linked to other cell organelles. (2 marks)

(c) Name the 'clean-up system' of the cell. What are they made up of and what is their function? (1 mark)

(d) Name one organelle present in both mitochondria and chloroplasts that is similar to bacteria. What does this similarity suggest about their evolutionary history? (1 mark)

Q4: Read the source below and answer the questions that follow:

Nidhi's science teacher was explaining the difference between two types of cells. She described the first type as primitive cells that lack a well-defined nucleus and membrane-bound organelles, and said their genetic material is present in a region called the nucleoid. The second type was described as more complex cells with a well-defined nucleus enclosed by a double-layered membrane, and several membrane-bound organelles each performing a specific function. The teacher then told the class that mature Red Blood Cells (RBCs) in humans are a special exception - they lack a nucleus even though they are eukaryotic cells. She explained that this absence serves a very important purpose.

(a) Name the two types of cells described by the teacher and give one example of each. (1)

(b) State any four differences between prokaryotic and eukaryotic cells. (2 marks)

(c) Why do mature Red Blood Cells (RBCs) in humans lack a nucleus? What is the disadvantage of this feature? (1 mark)

(d) Name the structure in prokaryotic cells where genetic material is stored. How is it different from the nucleus of a eukaryotic cell? (1 mark)

Q5: Read the source below and answer the questions that follow:

Tarun noticed that when he got a small cut on his skin, it healed after a few days without any treatment. His science teacher explained that this happens because cells in the body can grow and divide to replace old, dead, or damaged cells. The teacher described two types of cell division. The first type produces two genetically identical daughter cells from one parent cell and is important for growth, repair and maintenance. The second type produces four daughter cells each with half the number of chromosomes of the parent cell, and is important for sexual reproduction and creation of genetic diversity. The teacher also warned the class that if cell division does not happen in a controlled manner, it can lead to serious problems like tumour formation.

(a) Name the two types of cell division described by the teacher. State the number of daughter cells produced in each. (1 mark)

(b) Explain why the daughter cells produced in the first type of division are genetically identical to the parent cell, while those produced in the second type are genetically different. (2 marks)

(c) What is contact inhibition? How does the loss of contact inhibition lead to tumour formation? (1 mark)

(d) State the Cell Theory. Name any two scientists who contributed to its formulation. (1 mark)

Social science by Anuj Sir

1) Learn CRM of all days.

2) Learn Chapter Social Science: Meaning, Scope and Importance

3) Complete fair notebook.

Social Science by Dharmendra Sir

Holiday homework IX

1. Improve your English writing skill including handwriting.
2. Read the four chapters of your SST course book underline your doubt in the chapters then write them separately in The notebook.
3. Learn and write the word meanings of social science given in the CRM.
4. Practice map items given in your course book**.**

Social Science (Class 9A) by Abhishek Sir

1. Prepare maps of the followings:

a. India (Locating all the states along with their capitals)

b. Asia (Countries along with their capitals)

c. Europe (Countries along with their capitals)

d. Africa (Countries along with their capitals)

e. North America (Countries along with their capitals)

f. South America (Countries along with their capitals)

g. Australia (Countries along with their capitals)

2. Prepare a timeline of the Indian History.

3. Prepare Result Sheets along with some facts and figures of five state assembly election results which were declared on 4th May 2026.

Arts

🖉 Painting
Paint any miniature work(e.g., Pahari/Rajasthani/Mugal painting)
Practice perspective drawing (road/railway track)

🎨 Activity
Make a Poster on viksit bharat (Vision 2047)
Create a creative composition using imagination

🎨 Project Work
Topic: Principles of Design (Balance, Harmony, Contrast, Rhythm)
Explain with examples and drawings

☆ General Instructions
Use A3 sheets / drawing file
Maintain neatness & creativity
Use colors properly (no overuse)
Submit with cover page + index
Write your name, class,, roll no, section behind the work

Maths

1. Write the answers of following questions.
   (i) Name of intersecting point of X-axis and Y-axis. Also write coordinates of this point.
   (ii) In which quatrent (-5,9) lies .
   (iii) What is distance between (-2,7) and (6,1).
   (iv) Write abscissa and ordinate of (0,-8)
2. Plot following coordinates on graph paper
   (0,5) ; (-4,0) ; (-2,-9) ; (1,-6) ; (7,8) and (-3,2)
3. Convert 0.45454545.... in form of p/q .
4. Write 5 rational numbers between -2 and 1.
5. Draw graphical view of our school playground .
6. Write mean ,mode and median of following numbers
   13, 4, 15, 20, 15, 7, 9, 5, 2 ,10
7. Make Subject enrichment activity project .
   (i) Graphical view of your city ,mention important place like school, college, hospital, playground etc.
   (ii) Roadmap of your city with major streets.
   (iii) Graphical view of players in football ground.
   (iv) Anyone according to your choice.
8. Draw all geometric shapes (on chart) as you know and write their names also .
9. Write formula to find .
   (i) length of Arc of circle .
   (ii) Area of minor sector of circle .
   (iii) Area of parallelogram.
   (iv) Area of rhombus.