1. Write a poem of a popular poet based on ‘Motherhood’ on a chart paper. Give some relevant information about the poet also on the same chart.

2. The women of our society need to be empowered. Write Two interesting and catchy slogans based on the theme. (Cut-outs in different shapes)

3. You see your mother fulfilling an array of responsibilities throughout the day. You realise the self less love she has for the family. Design a card thanking your mother and expressing your love for her. (Cartridge or pastel sheet of A3 size, folded)

ग्रीष्मावकाशा ग्रृह कार्य
विषय - हिंदी
कक्षा - नवीं

प्र० १. निम्नलिखित विषयों पर ८०-१०० शब्दों में अनुसूचित लिखिते -
i) बढ़ते उद्योग करते वन
ii) गर्दन से निराश करो मन की
iii) स्वदेश प्रेम

प्र० २. अपनी हौस्ली बहन के सैकड़ों से होने वाली हानियों से अवगत करते हुए इस पत्र लिखिए।

प्र० ३. ‘राष्ट्र निर्माण में नारी का योगदान’ विषय पर एक अच्छे वांछित नैसर्गिक करें।

प्र० ४. ‘संविधान’ पुराक पुस्तक की कहानियों पढ़िए तथा पुस्तक में ही उनके प्रश्नों के उत्तर सर्कारित कीजिए।

टिप्पणी - प्रश्न १) तथा प्रश्न ३) एक अलग पुस्तिका में करें।
1. Find the value of ‘a’ and ‘b’ so that the polynomial \((x^2 - 10x^2 + ax + b)\) is exactly divisible by \((x - 1)\) and \((x - 2)\)
\[a=23, \ b=-14\]

2. If \((x^3 + ax^2 + bx + 6)\) has \((x - 2)\) as a factor and leaves a remainder 3 when divided by \((x - 3)\), find the values of ‘a’ and ‘b’.
\[a=3, \ b=-1\]

3. Factorise:
   (a) \(x^2 + y - xy - x\) \[((x-y)(x-1))\]
   (b) \(ab(x^2 + y^2) - xy(a^2 + b^2)\) \[((bx - ay)(ax - by))]\)
   (c) \(ab(x^2 + 1) + x(a^2 + b^2)\) \[((ax+b)(bx+a))\]
   (d) \(27a^2 - 48b^2\) \[3(3a - 4b)(3a + 4b)\]
   (e) \(x^4 - 635\) \[\((x-5)(x+5)(x^2 + 25)\]\)
   (f) \(a - b - a^2 + b^2\) \[\((a-b)(1-a-b)\]\)
   (g) \(x^3 - 5x^2 - x + 5\) \[\((x-5)(x-1)(x+1)\]\)
   (h) \(7\sqrt{2}x^2 - 10x^2 - 4\sqrt{2}\) \[\((x+\sqrt{2})(7\sqrt{2}x - 4)\]\)
   (i) \(5\sqrt{5}x^2 + 20x + 3\sqrt{5}\) \[\((5\sqrt{5}x + 3)(5x + \sqrt{5})\]\)
   (j) \(x^2 - 2x + \frac{7}{16}\) \[\frac{1}{16}(4x - 7)(4x - 1)\]
   (k) \(x^3 + 64\) \[\((x+4)(x^2 - 4x + 16)\]\)
   (l) \((a-b)^3 + (b-c)^3 + (c-a)^3\) \[\((a-b)(a-c)(b-c)\]\)
   (m) \(1 + b^3 + 8c^3 - 6bc\) \[\((1+b+2c)(1+b^2 + 4c^2 - b - 2bc - 2c)\]\)
   (n) \(a^3 - 0.064\) \[\((a-0.4)(a^2 + 0.4a + 0.16)\]\)
   (o) \(a^3 + b^3 + a + b\) \[\((a+b)(a^2 - ab + b^2 + 1)\]\)
   (p) \(\sqrt{3}x^2 + 11x + 6\sqrt{3}\) \[\((x+3\sqrt{3})(\sqrt{3}x + 2)\]\)
   (q) \(x^4 - 3x^2 + 2\) \[\((x+\sqrt{2})(x - \sqrt{2})(x + 1)(x - 1)\]\)
   (r) \(4x^4 + 7x^2 - 2\) \[\((x^2 + 2)(2x - 1)(2x + 1)\]\)

4. If \(x = 2y + 6\), find the value of \(x^3 - 8y^3 - 36xy - 216\)
   Ans: 0

5. Evaluate:
   (a) \((997)^2\) \[994009\]
   (b) \((106)^3\) \[994011992\]
   (c) \(a^3 + 6ap + p^3 - 8\), if \(p = 2 - a[a]\)

6. Without actual division, prove that \((2x^4 - 6x^3 + 3x^2 + 3x - 2)\) is exactly divisible by \((x^2 - 3x + 2)\)
   Ans: 14

7. If \(x = 2 + \sqrt{3}\), find the value of \((x^2 + \frac{1}{x^2})\)
   Ans: 14

8. Simplify:
   (a) \((\sqrt{5} + 1 + \sqrt{5} + 1)\) \[3\]
   (b) \((4 + \sqrt{5}) + (\frac{4 - \sqrt{5}}{5})\) \[\frac{42}{11}\]

9. Find the value of ‘a’ and ‘b’ if \(\frac{5 + 2\sqrt{3}}{7 + 4\sqrt{3}} = a - b\sqrt{3}\) \([a = 11, \ b = 6]\)

10. Represent \((a) \sqrt{19}\) \((b) \sqrt{3.4}\) \((c) \sqrt{7}\) on the number line
II. Working model on any one of the following topic:

(a) To show that volume is $1/3$ of the volume of cylinder of same radius and height. (Hint pg:231 from N.C.E.R.T)

(b) To show that surface area is $4\pi r^2$ (Hint pg:223 from N.C.E.R.T)

(c) To find the lateral surface area of a cylindrical building. (Hint pg:225 from N.C.E.R.T)

(d) Make a floral design of tiles which are triangular in shape and find its area using Heron's formula. (Hint pg:207 from N.C.E.R.T.)

(e) To show that the volume of a sphere is equal to volume of cylinder of same radius and height equal to the diameter.

(f) Model on $(a+b+c)^3$ identity.

(g) Any model of your interest relevant to IX class math syllabus.
1. Is it possible in straight line motion a particle have zero speed and a non-zero velocity? Explain.

2. Suggest a situation in which an object is accelerated and have constant speed.

3. Two balls of different masses are thrown vertically upward with same initial velocity. Maximum heights attained by them are \( h_1 \) and \( h_2 \) respectively. What is \( h_1/h_2 \)?

4. Why can speed of a particle not be negative?

5. What are positive and negative acceleration in straight line motion?

6. Can a body have zero velocity and still be accelerating? If yes, gives any situation.

7. A car is moving along x-axis. As shown in figure, it moves from O to P in 18 seconds and return from P to Q in 6 seconds. What are the average velocity and average speed of the car in going from
   a) O to P
   b) From O to P and back to Q

8. On a 60 km straight road, a bus travels the first 30 km with a uniform speed of 30 km\( \text{h}^{-1} \). How fast must the bus travel the next 30 km so as to have average speed of 40 km\( \text{h}^{-1} \) for the entire trip?

9. A driver takes 0.20 seconds to apply the brakes. If he is driving car at a speed of 54 km\( \text{h}^{-1} \) and the brakes cause a deceleration of 6.0 ms\(^{-2} \). Find the distance travelled by the car after he sees the need to put the brakes.

10. A ball thrown vertically upwards with a speed of 19.6 ms\(^{-1} \) from the top of a tower returns to the earth in 6 seconds. Find the height of the tower. (g = 9.8 ms\(^{-2} \))

11. A hiker stands on the edge of a cliff 490 m above the ground and drops a stone. Find the time taken by the stone to reach the ground and speed with which it hits the ground. (g = 9.8 ms\(^{-2} \))

12. A ball is thrown upward with a speed of 49 ms\(^{-1} \) and at the same time another ball is dropped from the top of a tower of height 100 m. Then after how much time they will meet each other and what is position of the stones?
Matter on our surroundings

1. State characteristic property of (a) Solids (b) Liquids (c) Gases
2. Why is a solid not compressible? Why?
3. Give an example of compressed gas used at home.
4. Why is a solid not compressible?
5. What is the physical state of the water at (a) 250°C (b) 100°C
6. An inflated balloon collapses when pricked. Name the property of gases exhibited by this.
8. Solids are generally rigid. What do you say about a rubber band which changes its shape when stretched? Is it solid?
9. Define density. What is its unit?
10. What is sublimation? Give two examples.
11. Define melting point.
12. Write the name of the process of the following state change.
   (a) Solid to liquid
   (b) Liquid to solid
   (c) Liquid to gas
   (d) Gas to liquid
   (e) Solid to gas
   (f) Gas to solid
13. Why does temperature remain same during melting when all the ice changes into water?
14. Which property of matter is helpful in survival of aquatic plants and animals?
15. What do you mean by (a) Latent heat of fusion (b) Latent heat of vaporization
16. State the relation to change the temperature of Kelvin scale to Celsius scale.
17. Differentiate between a gas and vapour.
18. Why does food cook faster in a pressure cooker?
19. Iron ball is solid and water is a liquid. How do two differ with respect to their shape, size, compressibility and diffusion?
20. Give one example of each of the following
   (a) Gas in gas diffusion
   (b) Liquid in liquid diffusion
   (c) Solid in solid diffusion
21. Name the two main factors responsible for the difference in the three states of matter.
22. An inflated air balloon collapses when pricked. Name the property of gaseous state shown by this fact.
23. In substance A, the forces of attraction between particles are very weak and the distance of separation between the particles is large. Predict the following properties of the substance
   (a) Shape and size
   (b) Diffusion
   (c) Physical state
   (d) Compressibility
24. Give an example to show that particles of matter continuously moving.
25. Why is ice at 273K more effective in cooling than water at the same temperature?
26. Which cause more severe burns, steam or boiling water at same temperature? Why?
1. What are cell organelles? Name them.
2. Why are they present in Eukaryotes?
3. Write the functions of SER and RER respectively.
4. What is membrane biogenesis?
5. Write the functions of Golgi apparatus.
6. Name the types of plastids. Where are they found in plant cell?
7. Why is mitochondria called the power house of the cell?
8. Name the cell organelle which detoxifies many poisons and drugs.
9. Name the cell organelle which is involved in the formation of Lysosomes.
10. Why is the Lysosomes called as suicidal bags, demolition squads, scavenger of the cell?
11. Write the 3 functions of vacuoles.
12. What is osmoregulation? How is it done in unicellular organisms?
13. Why is cell called as fundamental, structural, and functional unit of life?
14. How do lysosomes help in fertilization of the human sperm with ova?
15. What is the difference between cisternae and cristae?
16. How does Amoeba obtain its food? Name the process.
17. Why Doctors advice gargles with salt solution during throat infections?
18. Where are proteins synthesized inside the cell? How is it done in the cell?
19. Name the fluid present in vacuoles. Also write its function.
20. Draw a plant cell and animal cell. (coloured and labeled)

PROJECT WORK/ ACTIVITY WORK

# Take large carrot/potato pieces (peeled and unpeeled both) and place in the beakers containing the following liquids, alcohol, distilled water, saturated salt solution, saturated sugar solution, vinegar and milk. The carrot/potato pieces are observed after 6-8 hours.

- Answer the following questions by your observations.
  1. What the difference in the physical state of carrots/potato is as observed in all the six different cases?
  2. Name the processes involved that has caused a change in carrot/potato pieces in the beakers.
  3. Why has the processes occurred? Give reasons.
  4. Name the process in your daily life which works on the same principle.
  5. Make a table showing the details of your observations.
FA₁ Assignment- GEOGRAPHY

- Make a project on the topic ‘Water Resources’.
- Choose any one major river in India and prepare a project.

Some guidelines are given:
- Make maps on the sources course, catchment area, the tributaries, states benefitted.
- Collect data on the length of the river, the frequency of flooding and also dams and reservoirs on them.
- Geographic features formed by the river- pictures, drawings etc.
- Legends associated with the river.
- Benefits to the people in the rural and urban areas.
- Traditional or modern methods of conservative used.
- Pollution level of the river, stretches where pollution levels are high and their causes.

FA₁ Assignment- POLITICAL SCIENCE

General Elections in Karnataka

- Analyse the general election results held in the state of Karnataka for the state assembly.
- What were the emerging trends in the voting patterns.
- Name the main Political Parties contested the election and paste their symbols.
- Collect the materials for the Project from various sources like newspaper, magazines, journals and TV news channels.
- Do the Project in the Political Science Notebook and this is part of FA₁ Assignment.
CLASS – IX
SUBJECT – FRENCH

Prepare 2 French dishes at home. Write their recipe in your H.W note-book.

II) Listen and download some French songs in a CD.

III) Watch Cannes Film festival, 2013.

Children,

This year our school has taken one of the most important issues of these days i.e. “Gender Sensitization”. It refers to modification of behavior by raising awareness about gender equality concerns. Gandhiji once said, “India will obtain full freedom on the day women can walk safely at night”. Very true. Let us all resolve and work to transform our country into a safe and dignified place for all women and men.

Let our school lead the Nation in achieving Gandhi’s ‘full freedom’. A nation wherein every woman walks at any time not only safely but without any shame, indignity and disrespect.

Let us through our deeds and behavior display zero tolerance, violence in any form against women.

Let us resolve that we shall indeed create an India free of fear, violence and discrimination against girl child. For this event you need to make some charts/ models/ collage. Topics are written in front of your name.

1. Anchina Mohanty • Make a chart /model/collage on Joan of Arc
2. Aniket Wadhwa • Make a chart /model/collage on Noel (X-mas Tree)
3. Anwita Ray • Make a chart /model/collage on Mother Teressa
4. Anusha Kundu • Make a chart /model/collage on Gateaux
5. Arjun Chand • Make a chart /model/collage on Mme. Edith Cresson (Ex. P. M. of France)
6. Eshaan Nagpal • Make a chart /model/collage on Flag
7. Jaskirat Singh Brara • Songs of Edith Piaff
8. Kaanya Pandhi • Make a chart /model/collage on Marie Curie
9. Manica Mehra • Make a chart /model/collage on Celine Dion/ Choix
10. Priya Sharma • Make a chart /model/collage on rights of women in France
11. Risabh Gulati • Make a chart /model/collage on Simone de Beauvoir
12. Sanjam Grover • Make a chart /model/collage on Santa
13. Sankalp Sharma • Make a chart /model/collage on Mardi Gras
14. Sashreek Jindal • Make a chart /model/collage on Easter
15. Shashwat Agarwal • Make a chart /model/collage on Simone de Beauvoir
16. Shreya Panwar • Make a chart /model/collage on Gateaux
17. Shristi Khandelwal • Make a chart /model/collage on Jour de l’an (La Saint-Sylvestre)
18. Vaibhav Chopra • Make a chart /model/collage on Toussaint
19. Varun Chandra • Make a chart /model/collage on la fêtede Nationale
1. Write the positive and negative impact of internet in our life.

2. Write short notes on the following
   a) Blog
   b) Twitter.
   c) Video Conferencing

3. Compare the following
   a) CD and DVD
   b) Pen Drive and DVD
   c) Firewire Port and Ethernet Port

4. Search Openoffice on internet and write about all the components in detail.

5. Name two free email service providers?

6. What is the difference between INBOX and SENTMAIL BOX?

7. Write one advantage of chat over email?

8. Write one advantage and one disadvantage of Video Conferencing?

**COMPUTER SCIENCE**

**MAKE A CHART/ COLLAGE/WEBSITE/MOVIE/PRESENTATION ON GIVEN TOPIC**

**NOTE : SUBMISSION OF WEBSITE/MOVIE/PRESENTATION WILL BE TAKEN ONLY IN CD**

**CLASS IX**

**TOPIC : FROM GENDER DISCRIMINATION TO GENDER EQUALITY**

Gender discrimination TO GENDER EQUALITY

What measures should we take to prevent the existing discrimination of women and prevent atrocities against girls and provide them with equal rights as men
FOR CLASSES IX & X
HOLIDAY HOMEWORK PROJECT / CHART

Main Topic – Conservation of Energy
Sub Topic – Solar energy, wind energy, air conditioning conservation, bathroom water conservation, computer energy conservation, cooking energy conservation, electric energy conservation, lighting conservation, laundry energy conservation, biofuel geothermal energy, biodiesel plant, any other
ग्रीष्मावधाकालीन ग्रन्थकार्य - 2013

कथा - नवम् विषय - संस्कृत

ग्रन्थकार्य के लिए एक पतली कॉपी अलग से बनाइएँ - निम्नलिखित चातुर्य के सूच पाने लागाएं या लिखिएँ -

पु गाम असु ओ दूर पत्रा नमः

वाल लता मति नन्दि साधु पिठ अस्माद तथा पुरुषम् के रूप लिखकर यह कीजिएः

यत्र नाशिस्नु पुजयाँते समेत तत्र देवता इस सूचित के आधार अनुक्रम बनाइएँ

श्रीगुप्त