ARMY PUBLIC SCHOOL JHANSI
SESSION 2021 – 22
CLASS –10th

It's summer time, school vacation has begun, Its time to play and have fun INDOORS. Time to spend with kith and kin

Happy Holidays

Dear Student,

- Summer Vacation is the best and the most fruitful time for learning and nurturing creativity. Keeping this objective in mind we have planned diverse and exciting activities that will enhance your knowledge and boost your creativity.

- "Knowledge is Power". Therefore read lots and lots of books to cultivate the reading habit and develop your vocabulary, language skills, increase your attention span and improve your spellings.

- "A healthy mind lives in a healthy body". So play the sport of your choice INDOORS. It will help to instill discipline, generate sporting spirits and channelize your energies constructively.

- Get up early in the morning and see the rising sun. Do indoor exercises / yoga and stay healthy and fit. Spend quality time with your elders and share your thoughts and ideas with them.

- Eat healthy food and drink lots of water during summer.

- Integrating curriculum helps students deepen their understanding of the subject matter and comprehend relationship between different areas of study. This year's holiday homework has been designed keeping this inter disciplinary aspect in mind.

Principal

English-

FIRST FLIGHT: Read and find meanings of unfamiliar words from the following chapters. Write character sketches of the main characters

1. A Letter to God
2. Nelson Mandela Long Walk to Freedom
3. Two Stories about Flying

Words & Expressions: Complete Unit 1, 2 & 3

Foot Prints Without feet: Learn Q & A of the following chapters

1. A Triumph of Surgery
2. The Thief's Story

Writing Skill: (Letter for placing order)

1. Write a letter to M/s PK Publication, Karol Bagh, New Delhi ordering some titles of National Integration books for your school library. You are Ravi/ Ritika, Librarian of Happy School, Daryaganj Delhi.

2. You are Shivansh /Shivani, sports secretary, Army Public School, Pune. Write a letter to Lightways Sports, Subhash Ganj Pune, placing an order for sports articles (minimum four items) to be supplied to your school.

3. You are Ashok/ Anshika, the manager of St. Tukaram School, Rohtak, place an order for School furniture. The name of the firm is M/S 'Maa Durga Furniture Mart', Kirti Nagar New Delhi.

Science-

1. Learn Question and answers from the following chapters :-

   I) Chemistry:
    Chemical reactions and equations.
   ii) Biology:-
     Life Process (till the topics completed)
   iii) Physics:-
      Light (till the topics completed)
2. Write the following Practicals in your Practical copy :-
   Chemistry:-(page no. 14 in lab manual)

      1. Combination reactions
      2. Decomposition Reactions
      3. Displacement Reactions
      4. Double Displacement Reactions

   Biology:-
       1. To Prepare a temporary mount of leaf to show the presence of stomata.
       2. To show that light is necessary for Photosynthesis.(page .no – 51)
   Physics:-
       1. To find the focal length of concave mirror and Convex lens.(page no. 75)

Mathematics-

(Any 20 questions)

1. Find the greatest number of 5 digits exactly divisible by 12, 15 and 36.

2. Find the smallest number which when increased by 20 is exactly divisible by 90 and 144.

3. Find the smallest number which leaves remainder 8 and 12 when divided by 28 and 32 respectively.

4. If HCF (6, a) = 2 and LCM (6, a) = 60, then find a.

5. If one zero of the polynomial $5z^2 + 13z - p$ is reciprocal of the other, then find p.

6. If the product of two zeroes of polynomial $2x^3 + 3x^2 - 5x - 6$ is 3, then find its third zero.

7. Find the polynomial of least degree which should be subtracted from the polynomial $x^4 + 2x^3 - 4x^2 + 6x - 3$ so that it is exactly divisible by $x^2 - x + 1$.

8. Is polynomial $y^4 + 4y^2 + 5$ have zeroes or not?

9. Write a quadratic polynomial, sum of whose zeroes is 6 and product is 5.

10. Write the zeroes of the polynomial $x^2 + 2x + 1$.

11. Draw the graph of 2x+y=6 and 2x-y+2=0. Shade the region bounded by these lines and x axis. Find the area of the shaded region

12. When you add two numbers and the number obtained by reversing the order of its digits is 165. If the both numbers differ by three, find the number.

13. A number say z is exactly the four times the sum of its digits and twice the product of the digits. Find the numbers.

14. Solve graphically 4x-3y+4=0, 4x+3y-20=0

15. The larger of two supplementary angles exceeds thrice the smaller by 20 degrees.

16. A bag contains 9 black and 12 white balls. One ball is drawn at random. What is the probability that the ball drawn is black?

17. Find the probability that a number selected from the numbers 1 to 25 which is not a prime number when each of the given number is equally likely to be selected.

18. A bag contains 10 red, 5 blue and 7 green balls. A ball is drawn at random. Find the probability of this ball being not a blue ball.

19. Two dice are thrown at the same time and the product of numbers appearing on them is noted. Find the probability that the product is less than 9.

20. Cards, marked with numbers 5 to 50, are placed in a box and mixed throughly. A card is drawn from the box at random. Find the probability that the number on the taken out card is:
  (i) a prime number less than 10.
  (ii) a multiple of 3 more than 12 and less than 45.

21. Prove that the product of three consecutive positive integers is divisible by 6.

22. Show that the square of any positive integer cannot be of the form 3m + 2, where m is a natural number.

23. Apply division algorithm to find the quotient q(x) and remainder r(x) on dividing f(x) by g(x) in the following:

$F(x) = x^3 - 6x^2 + 11x - 6$, $g(x) = x^2 + x + 1$

24. Find all the zeroes of the polynomial $x^4 + x^3 - 34x^2 - 4x + 120$, if the two of its zeros are 2 and -2.

25. Find the condition that zeroes of polynomial $p(x) = ax^2 + bx + c$ are reciprocal of each other.

26. For what value of k, the pair of equations 4x – 3y = 9, 2x + ky = 11 has no solution?

27. Find the two numbers whose sum is 75 and difference is 15.

28. A box contains cards numbered 6 to 50. A card is drawn at random from the box. Calculate the probability that the drawn card has a number which is a perfect square.

1. Find the HCF of two numbers experimentally based on Euclid's division lemma.
PROJECT(Prepare a ppt of 10 slides)
2. Aryabhatta– The Mathematician and Astronomer

Social Science

A. Prepare a project file with following details:

1. The total length of the project report should not be more than 10-12 written pages of A-4 size sheet.

2. The project report should be handwritten and credit will be awarded to original drawings, illustrations and creative use of eco-friendly material.

3. The project report should be developed and presented in this order

a) Cover page showing project title, student information, school and year.

b) List of contents with page numbers.

c) Certificate page

d) Chapters with relevant headings.

e) Summary and conclusions based on findings.

f) Bibliography: should have the Title, author, publisher and if a website the name of the website with the specific website link which has been used.

Note : Every student has to compulsorily undertake any one project on the following topic:

1. **Consumer Awareness**

The students must write about following key matter:

a. Enactment of COPRA 1986 and its benefits

b. Various Consumer Rights

c. Role of WTO in protection of Consumers

OR

2. **Social Issues**

The students must write about following key matter:

a. Social issues in Indian Society

b. Reforms initiated to combat the social issues

c. Role of Popular leaders and movements.

OR

3. **Sustainable Development**

The students must write about following key matter:

a. Need of development.

b. Importance of development

c. Policies initiated to adopt measures for Sustainable Growth.

B. Complete the questions answers of the chapters of History & Economics in the nt. Bk..

C. Read the chapters taught carefully of SST and draw the Concept map of each chapter (Covered till 30th April , 2021)

****Note-Keep the concept maps and Holiday Homework project sheets in your SST Portfolio folder

ग्रीष्मकालीनअवकाशगृहकार्य

❖पढ़ायाजाचुकापाठ्यक्रमपढ़ेवयादकरें।

❖पाठजोपढ़ाएजाचुकेंहैउन्हेंपढ़ेतथाअतिरिक्तप्रश्नोंकानिर्माणकरें।

❖आपकेइलाकेमेंकोरोनावैक्सीनकीउचितउपलब्धिहेतुचिकित्साअधिकारीकोपत्रलिखें।

❖कोरोनावैक्सीनपरएकविज्ञापनतैयारकरें।

❖‘ अहंकार मनुष्य का विनाश करता है ‘ विषय पर लेख लिखें।

❖एकस्वरचितकवितायालेखलिखे।

❖येसभीक्रियाकलाप$A4$साइज़पेपरपरलिखकरफोल्डरमेंरखकरतैयारकरें।