New Light Education Centre
Akbarpur Kanpur Dehat

HOLIDAY HOMEWORK of Class 11th

From principal desk

Dear Parents,

Summer vacation is a welcome break.........from schedule, rules and regulations of the school. Freedom brings more responsibility, so keeping this in mind we have planned an array of activities to keep our children engaged and also help them in channelizing their energies positively.

Happy Holidays" Have fun with your little one."

If there is one particular message this summer, it is this: Take the time to show children how wonderful, unique and special they are. Be there for them. While we would like our children to enjoy their summer break, we thought we would share with you a few activities which could be incorporated in their routine, so that they learn while they play. Do participate and relive your childhood with them.

How independent can I become?

➢ Make your child more independent by teaching him or her various activities like
➢ Buttoning and unbuttoning the shirt.
➢ Laying the table.
➢ Folding mats and clothes.
➢ Arranging their toyself.
➢ Learning to wear shoes and socks.
➢ Practice tying your shoes laces.
➢ Learning how to zip the school bag and uniform.
➢ Sorting and pairing household items.

Good Manners and Good Habits

➢ Good manners and good habits are lifelong assets and it should be practiced until they become a habit. Revise the four magical words Please, Sorry thank you and excuse me which we have learnt as the basis of good manners.
➢ Use of magic words like excuse me, sorry, thanks, please.
➢ When asking for something, say "Please"
➢ When receiving something say, "Thank you"
➢ Do not interrupt grown-ups who are speaking with each other unless there is an emergence
➢ If you need to get somebody's attention right away, the phrase "Excuse me" is the politest way for you to enter the conversation.

- When you have any doubt about doing something, ask permission first.
- When you have spent time at your friend's house remember to thank his or her parents for having you over and for the good time you had. Books are the chief medium of imparting knowledge and education to the kids. The booky att the window to their perfect understanding of different topics.
- To enhance their knowledge and reading skills make your child learn anyone English short story (8-10 lines) and prepare them for the narration of story,
- To make the story more interesting you can make your own puppets with old bottles, cartoons, ribbons buttons etc. Make a video on it.)

English

1. Prepare a project file on 'Portraits of Lady'
2. You are Sanya Bansal, the mother of a 14-year old son your son is weak in maths. Draft a classified advertisement, seeking a suitable math's tutor.
3. Rearrange the words so that they are in the correct Order:
   i. In India / grow/is/coffee/ the Farmers/by
   ii. by her /not being / the flowers / are / plucked
   iii. The student / is /by/ Sung / national anthem/ the
   iv. Has come/ the / the / is glad / baby / that / mother.
   v. Oil / was found | In the North sea/1960s / the/under
4. Write a Summary on 'Address'
5. Complete the Topic 'Tenses' In a chart (e.g. Structure of the Tense)

हिंदी

1. हिंदी गद्य खंड में पाठ 1 से पाठ 4 तक पढ़कर सारांश समझते हुए प्रश्न उत्तर याद करके लिखेंगे।
2. हिंदी काव्य खंड में पाठ 1 से पाठ 4 तक पढ़ कर भावार्थ समझ कर प्रश्न उत्तर लिखकर याद करेंगे।
3. वितान में पाठ 1 से पाठ 5 तक पढ़कर प्रश्न उत्तर लिखेंगे।
4. नारी शिक्षा, अनुशासन का महत्व, बड़े बुजुर्गों से सीखे गए संस्कार, आदर्श मानव जीवन कैसे बने आदि विषयों पर सृजनात्मक लेख लिखेंगे।
5. अपनी पाठ्य पुस्तक के किसी एक लेखक और किसी एक कवि का जीवन चरित्र, रचनाएं, और शिक्षा में योगदान फाइल के पृष्ठ पर लिखकर अपनी हिंदी की प्रोजेक्ट फाइल में लगाइए।
6. "कहानी मनोरंजन का सुगम साधन है" विषय पर लेख लिखिए।
7. "आपकी प्रिय कहानी" लिखकर उसका चित्र बनाएं।

Maths

1. If A is an acute angle, then $\sin\left(\frac{\pi}{4} + A\right) \sin\left(\frac{\pi}{4} - A\right)$ is

   a) $\cos 2A$　　　　　　b) $\frac{1}{2}\cos 2A$　　　　　c) $\cos A$　　　　　　d) $\frac{1}{2}\cos A$

2. if $\tan x = \frac{-4}{3}$ and x lies in II Quadrant, then $\sin\frac{x}{2}$ is

   a) $\frac{1}{2}$　　　　　　　b) $\frac{1}{3}$　　　　　　　c) $\frac{1}{5}$　　　　　　　d) $\frac{1}{\sqrt{5}}$

3. The value of $\sin 600°.\tan(-690°) + \sec 840°.\cot(-945°)$ is

   a) 1/2.　　　　　b) 3/2.　　　　　c) 1　　　　　　　d) 0

4. If A, B, C, and D are the angles of a cyclic quadrilateral, then the value of cos A + cos B + cos C + cos D is

   a) 360°　　　　　b) 180°　　　　　c) 90°　　　　　　d) 0

5. If x = tanθ, then $\frac{1-x^2}{1+x^2}$ is

   a) $\cos 2\theta$　　　　b) $\cos \theta$　　　　　c) $\cos \frac{\theta}{2}$　　　　　d) $\cos 2\theta$

6. The value of $2\sin 2A - 8\cos A \sin^3 A$ is

   a) cos 3A　　　　　b) sin 3A　　　　　c) sin 4A　　　　　d) $\frac{1}{2}$Sin4A

7. If $A + B = \frac{\pi}{4}$, then the value of (1+tan A) (1+tan B) is

   a) 0　　　　　　　b) 1　　　　　　　c) 2　　　　　　　d) 3

8. If Cos A + Cos B = 2, then the value of $\cos^2\frac{A}{2} + \cos^2\frac{B}{2}$ is

   a) 0　　　　　　　b) 1　　　　　　　c) 2　　　　　　　d) 4/3

9. Find the value of tan 135°

10. Value of $\sin 20^0 [\tan 10^0 + \cot 10^0]$ is _____.

11. Simplify: $\dfrac{\sin(180°+\theta)\,\cos(360°-\theta)\,\tan(270°-\theta)}{\sec(90°+\theta)\,\tan(-\theta)\,\sin(270°+\theta)}$.

12. Express $\sin 4\theta - \sin 2\theta$ as product of trigonometric functions.

13. In any quadrilateral ABCD, prove that Sin (A+B) + Sin (C+D) = 0.

14. Prove that $\dfrac{\tan\left(\frac{\pi}{2}-x\right)\sec(\pi-x)\sin(-x)}{\sin(\pi+x)\cot(2\pi-x)\csc\left(\frac{\pi}{2}-x\right)} = 1$

15. Express $2\sin\theta \cos 3\theta$ as sum or difference of trigonometric functions.

Four/Six marks Questions

16. Show that $\sin 10° \sin 30° \sin 50° \sin 70° = \frac{1}{16}$.

17. Prove that $\dfrac{(\cos 2B - \cos 2A)}{(\sin 2B + \sin 2A)} = \tan (A - B)$

18. Prove that $1 + \cos 2x + \cos 4x + \cos 6x = 4\cos x . \cos 2x . \cos 3x$

19. Show that $\sin 2x + 2 \sin 4x + \sin 6x = 4\cos^2 x \sin 4x$.

20. Prove that, $\dfrac{\sin A.\sin 2A + \sin 3A.\sin 6A}{\sin A.\cos 2A + \sin 3A.\cos 6A} = \tan 5A$.

Physics

1. Write the dimensional formulas of any twenty five physical quantities

2. Prepare the derivation of equations of motion of an object moving in a plane with constant Acceleration.
3. Solve and prepare the example 3.5 and numerical 3.10, 3.11, 3.12, 3.17, 3.18, 3.19, 3.20.
4. Prepare the topic projectile motion with derivation of various terms like maximum height, time of flight, range.
5. Prepare the parallelogram method of addition of two vectors by giving the magnitude and Direction.
6. How do we subtract two vectors by using the method of addition of vectors?

Chemistry

Q1. Classify the following into elements, compounds and mixtures. Divide mixtures into homogeneous and heterogeneous (i) marble (ii) Honey (ii) Toothpaste (i) Sugar (v) gold (vi) Niter (vii) lodized Table salt (viii) Iron (ix) Steel (x) Distilled water (xi) slaked lime (xii) oxygen (xiii) Gasoline (xiv) silk (xv) Tap water.

Q2. Classify following into metals and non-metals;- (i) Helium (ii) Sodium (iii) Mercury (iv) graphite (v) Carbon (vi) silicon (vii) Magnesium (viii) Phosphorous (ix) Arsenic (x) Antimony

Q3. How will you separate the constituents present in the following mixtures: (i) common salt and water (ii) lodine and sand (iii) sugar and sulphur (iv) Kerosene and water (v) salt + sand + sulphur + Iron

Q4. With the help of example justify each statement for different laws of chemical combination.

Q5 (i) How many gram molecules are present in 4.9g of H_2SO_4? (ii) Calculate the mass of 0.72 molecules of CO_2.

Q6. Calculate the number of atoms in: (i) 0.25 mole atoms of C (ii) 0.20 mole molecules of O_2.

Q7. How many atoms of carbon and oxygen are present in 1.5 mole of CO_2?

Q8. How many molecules and atoms of phosphorus are present in 0.1 moles of P_4 molecules?

Q9. How many silver atoms are present in a piece of jewellery weighing 10.78 g? Ag = 107.8 a.m.u.

Q10. What weight of calcium contains the same number of atoms as per present in 3.2g of sulphur?

Q11. Calculate the number of atoms present in: (i) 52 moles of He (ii) 52 a.m.u. of He (iii) 52g of He

Q12. Calculate the total number of electrons present in 1.6g of methane. Q13. How many atoms of each type are present in 143g of washing soda ($NaCO_3. 10 H_2O$)?

Q14. Calculate the no. of moles of phosphorus in 92.9 g of 'P' assuming that molecular formula of 'P' is P_4. Also calculate the no. of atoms and molecules of P in the sample.

Q15. What is the mass of 0.04 mol of Co_2?

Q16. Calculate the mass of water molecule? How many molecules of water are there in 1L of water? The density of water is 1.0 g/ml

Q17. How many molecules of water are there in 1L of water? The density of water is 1.0 g/ml.

Q18. How many moles of hydrogen are there in 0.925g of Ca (OH)2? Ca = 40 a.m.u.

Q19. Calculate the mass of 1 molecule of CS2?

Q20. 1 million atoms of silver weigh 1.79 x 10-16g. Calculate the atomic mass of silver.

Q21. Calculate the weight of CO moving same no. of oxygen atoms as are present in 88g of carbon dioxide?

Q22. Chlorophyll contains 2.68% of mg by weight. Calculate no. of mg atoms in 2.00 g of chlorophyll. (at mass of Mg = 24)

Q23. The cost of table salt and sugar are Rs. 2 per kg. and Rs. 6 per kg. respectively. Calculate the cost per mole.

Q24. Calculate the no. of gold atoms in 300 mg. Of a gold ring of 20 carat gold (at mass of gold = 197, pure gold is 24 carat).

Q25. Find the mass of an atom of silver. The molar mass of Ag atom is 108 g mol-1.

Biology

1. Make Project on any one topic given below-
i.   Components of Food
ii.   Pollution
iii.   Non-Conventional Sources of Energy
iv.   Human Genome Project
v.   Malnutrition
vi.   Sickle Cell Anemia and its Prevention
vii.   India's Monsoon
viii.   Manures and Chemical Fertilizers
ix.   Importance of Trees
x.   Greenhouse Effect
xi.   Vermicomposting
xii.   Blood Group

Instructions –

i.   Syntax/Type/Structure etc. (according to your topic) of the..........
ii.   Methods used in the study of project.
iii.   Importance or uses of.....
iv.   Conclusion

v.   Reference

Note- If it helps you please up vote. If you still have any problem inform me, i will try to provide you an answer according to your understanding.

Physical education

1. Where is the summer Olympic 2024 being held?
2. In which country are Olympic being held?
3. Who has won the most Olympic medals ever and in which sport?
4. What is the name of the Olympic mascots this year?
5. Where were the first ever Olympic held?
6. Take an A-4 size paper and write as many words as you can make out of :
    i.   A- Summer Olympic
    ii.   B- Winter Olympic
7. Write a short on Commonwealth Games.
8. Write a short on Asian Games.
9. Who is the father of KHO-KHO?
10. Number of innings in game of KHO-KHO.
11. Meaning of red card in KHO-KHO.

Note -Make a card for your father and give it to him, on Father's Day.
Happy Holidays!!!!!!