

St. John's High School

HOLIDAY HOMEWORK (CLASS IX)

ENGLISH

- ❖ Cartoon strip on the story – A dog named Duke.

HINDI

- ❖ निम्नलिखित मूल्यपरक प्रश्नों के उत्तर लिखें: –

1. 'गिल्लू' संस्मरण के आधार पर पशु-पक्षियों के प्रति प्रेम और संरक्षण की प्रेरणा के भावों को स्पष्ट करें।
2. गिल्लू की मृत्यु होने पर लेखिका को असीम वेदना का अनुभव हुआ। इसी प्रकार पशु-पक्षी व मानव एक दूसरे के दुख से प्रभावित होते हैं। क्या आप इस बात से सहमत हैं?
3. 'स्मृति' पाठ में भ्रातृप्रेम का अनूठा उदाहरण प्रस्तुत किया गया है। क्या आज भी ऐसे भ्रातृप्रेम के दर्शन होते हैं? अपने विचार लिखें।
4. 'स्मृति' कहानी में हमारे ग्रामीण परिवेश से संबंधित आज्ञाकारिता, प्रेम, भ्रातृभाव, सत्यवादिता जैसे मानवीय गुणों को उजागर किया गया है। आजकल ये गुण लुप्त क्यों होते जा रहे हैं?
5. 'स्मृति' पाठ द्वारा क्या प्रेरणा दी गई है?

SOCIAL STUDIES

- ❖ What is Disaster Management? Explain in detail the phases of Disaster Management with pictures and examples. Also list any 5 risk inducing factors in your home, school or any office.
- ❖ Project should be in a thin scrap file with colourful pictures. Presentation will be marked.

SCIENCE

❖ PHYSICS

1. Anand leaves his house at 8.30 a.m. for his school. The school is 2 km away and classes start at 9.00 a.m. If he walks at a speed of 3 km/h for the first kilometer, at what speed should he walk the second kilometer to reach just in time?
2. A bullet hits a Sand box with a velocity of 20m/s and penetrates it upto a distance of 6 cm. Find the deceleration of the bullet in the sand box.
3. How will the equations of motion for an object moving with a uniform velocity change?
4. A train starts from rest and accelerate uniformly at the rate of 5m/s^2 for 5 sec. Calculate the velocity of train in 5 sec.
5. Define uniform circular motion and give example of it. Why is it called accelerated motion?

❖ CHEMISTRY

1. Write the difference between evaporation and vapourisation.
2. Which gas is called dry ice and why?
3. Sidak was making tea in a kettle. Suddenly she felt intense heat from the puff of steam gushing out of the spout of the kettle. She wondered whether the temperature of steam was higher than that of water boiling in the kettle. Comment and explain the above process.
4. You want to wear your favourite shirt to a party, but the problem is that it is still wet after a wash. What three steps would you take to dry it faster?
5. Give reasons:-
 - (a) Sponge through compressible is a solid.
 - (b) Evaporation causes cooling
 - (c) We can get smell of perfume sitting several meters away.
 - (d) Our palm feels cold when we put alcohol on it.
 - (e) Oxygen is called a gas.

❖ **BIOLOGY**

1. Which cell organelle is called suicide bags and why?
2. Explain the process of membrane biogenesis.
3. What will happen:
 - (a) Salt is applied to raw mango pieces.
 - (b) Concentrated solution of fertilizer is applied to green grass lawn.
 - (c) Plant cell is kept in highly concentrated salt solution.
4. What precaution can you take in your school to reduce the incidence of infectious diseases?
5. (a) Write differences between:-
 - (i) Diffusion and Osmosis
 - (ii) Acute and Chronic Diseases
 - (iii) Infectious and Non-infectious diseases(b) Give full form of:
 - (i) AIDS
 - (ii) HIVsWhat is the connection between the two?

PUNJABI

- ❖ ਆਓ ਕਦਰਾਂ-ਕੀਮਤਾਂ ਤੇ ਅਧਾਰਿਤ ਇੱਕ ਕਹਾਣੀ ਲਿਖੀਏ। ਕਹਾਣੀ ਦੀ ਸ਼ੈਲੀ ਅਤੇ ਰੂਪ ਨੂੰ ਨਿਖਾਰਨ ਲਈ ਵੱਧ ਤੋਂ ਵੱਧ ਮੁਹਾਵਰਿਆਂ ਰੂਪੀ ਗਹਿਣਿਆਂ ਦਾ ਸ਼ਿੰਗਾਰ ਕੀਤਾ ਜਾਵੇ।
ਨੋਟ:

1. A-4 Sheet ਦੀ ਵਰਤੋਂ ਕੀਤੀ ਜਾਵੇ।
2. ਘੱਟ ਤੋਂ ਘੱਟ 10 ਮੁਹਾਵਰਿਆਂ ਦੀ ਵਰਤੋਂ ਕੀਤੀ ਜਾਵੇ।
3. ਉ-ਹ ਅੱਖਰਾਂ ਵਾਲੇ ਮੁਹਾਵਰਿਆਂ ਦੀ ਵਰਤੋਂ ਕੀਤੀ ਜਾਵੇ।

MATHEMATICS

- ❖ 1. Express the following in the form p/q:-
(i) $4.3\bar{2}$ (ii) $15.71\bar{2}$
2. Simplify: $\left(\frac{81}{16}\right)^{-3/4} \times \left[\left(\frac{25}{9}\right)^{-3/2} \div \left(\frac{5}{2}\right)^{-3}\right]$
3. Show that: $\frac{x^{a(b-c)}}{x^{b(a-c)}} \div \left(\frac{x^b}{x^a}\right)^c = 1$
4. Find a and b if $\frac{\sqrt{3}-1}{\sqrt{3}+1} = a + b\sqrt{3}$
5. Simplify: $\frac{3}{5-\sqrt{3}} + \frac{2}{5+\sqrt{3}}$
6. Find the product: $(x-1)(x+1)(x^2+1)(x^4+1)$
7. If $x + \frac{1}{2} = 6$, find $x^2 + \frac{1}{x^2}$
8. If $x + y = 12$ and $xy = 32$, find $x^2 + y^2$.

9. Simplify: $(a + b + c)^2 + (a - b - c)^2$
10. Expand the following:-
 (i) $(3x + 2y)^3$ (ii) $\left(\frac{1}{3x} - \frac{2}{5y}\right)^3$
11. Draw the graph of $x - 2y = 3$. From the graph, find the coordinates of the point when $y = 0$.
12. Express y in terms of x , it being given that $3x + y - 12 = 0$. Check whether the point $(3, 3)$ lies on this line.
13. Express y in terms of x in the equation $2x - 3y = 12$. Find the points where the line represented by this equation cuts the x -axis and the y -axis.
14. Evaluate:
 $\left(\frac{1}{2}\right)^3 + \left(\frac{1}{3}\right)^3 - \left(\frac{5}{6}\right)^3$
15. Simplify the following:-
 (i) $(\sqrt{11} - \sqrt{5})^2$
 (ii) $(3 + 2\sqrt{2})(3 - 2\sqrt{2})$
16. Evaluate the following:-
 (i) $\left(\frac{2}{11}\right)^4 \times \left(\frac{11}{3}\right)^2 \times \left(\frac{3}{2}\right)^3$
 (ii) $2^{55} \times 2^{60} - 2^{97} \times 2^{18}$
17. Represent $\sqrt{3}$ on the number line.
18. Find x if $5^{x-3} \cdot 3^{2x-8} = 225$
19. If $x = 1 - \sqrt{2}$, find the value of $\left(x - \frac{1}{x}\right)^3$
20. Factorize: $2(x + y)^2 - 9(x + y) - 5$

LIBRARY

- ❖ Designing a book jacket and review writing.