

Name : \_\_\_\_\_

# The Ideal New Star English School Varanasi

## Homework for Summer Holidays

Session : 2025-26

Class – IX

Kids, the much awaited holidays are here and it's time to play and have fun!! We have planned some work for you to make the optimum use of your energy and give a vent to your creativity so that you continue learning during the holidays.

- ❖ Parents are requested to encourage their ward to do the homework independently.
- ❖ They can help the child if he/she needs help.
- ❖ Creativity and originality of the work will be appreciated.
- ❖ Complete the homework of each subject in a thin notebook, separate report file, stick file or scrapbook as per requirement of the subject and the activity.

### Subject - English

Answer the following questions.

1. In which respect is your school system different from that of Margie's? Which one do you like and why?
2. Machines can't replace human beings. Explain this in 100-120 words with reference to the lesson "The Fun they Had".
3. Write a letter to your friend telling him how Evelyn has inspired you.
4. 'Music has no religion.' How did Bismillah Khan's Shehnai prove it? Do you also think so? Explain.
5. Describe the condition of the child when he was separated from his parents in the fair. Do you think it is a natural reaction?
6. Compare the attitude of the child before and after his separation from his parents. The company of parents is more important than the things of pleasure. Do you agree?

### हिन्दी

निर्देश- समस्त प्रश्न अनिवार्य है।

1. किसी एक पशु/पक्षी की विशेषताओं से संबंधित कार्य प्रपत्र चित्र सहित तैयार कीजिए।
2. कबीर दास के पाँच दोहे लिखकर याद करे जो आपके पाठ्य पुस्तक में न दिए गए हो।
3. 'इस जल प्रलय' में एक तरफ जल की विभिषिका बताया गया है परन्तु जल की कमी भी लोगों के लिए हितकारी नहीं होती है इसलिए जल की अधिकता व कमी दोनों पर अपने विचार प्रकट करें।
4. 'नवयुग हिन्दी व्याकरण' के उपसर्ग अध्याय से प्रश्न 2 व 3 करो।

### Mathematics

1. Express the following decimals in the form  $\frac{p}{q}$ , where  $p$  and  $q$  are integers and  $q \neq 0$ .

(i) $0.\bar{2}$	(iv) $18.\bar{48}$	(vii) $1.3\bar{23}$	(x) $0.40\bar{7}$
(ii) $0.\bar{53}$	(v) $0.\bar{235}$	(viii) $0.3\bar{178}$	
(iii) $2.\bar{93}$	(vi) $0.00\bar{32}$	(ix) $32.12\bar{35}$	
2. Represent the following on number line.

(i) $\sqrt{2}$	(iii) $\sqrt{5}$	(v) $\sqrt{9.5}$
(ii) $\sqrt{3}$	(iv) $\sqrt{3.5}$	
3. Rationalise the denominator of each of the following:

(i) $\frac{1}{\sqrt{7}}$	(iv) $\frac{1}{\sqrt{2}+\sqrt{3}}$	(vii) $\frac{1}{\sqrt{7}-\sqrt{6}}$	(x) $\frac{3-2\sqrt{2}}{3+2\sqrt{2}}$
(ii) $\frac{\sqrt{5}}{2\sqrt{3}}$	(v) $\frac{1}{\sqrt{5}-2}$	(viii) $\frac{4}{\sqrt{11}-\sqrt{7}}$	
(iii) $\frac{1}{2+\sqrt{3}}$	(vi) $\frac{1}{5+3\sqrt{2}}$	(ix) $\frac{1+\sqrt{2}}{2-\sqrt{2}}$	

4. Find rational numbers  $a$  and  $b$  such that:

(i)  $\frac{\sqrt{2}-1}{\sqrt{2}+1} = a + b\sqrt{2}$

(ii)  $\frac{2-\sqrt{5}}{2+\sqrt{5}} = a\sqrt{5} + b$

(iii)  $\frac{\sqrt{3}+\sqrt{2}}{\sqrt{3}-\sqrt{2}} = a + b\sqrt{6}$

(iv)  $\frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a + b\sqrt{3}$

(v)  $\frac{7+3\sqrt{5}}{3+\sqrt{5}} - \frac{7-3\sqrt{5}}{3-\sqrt{5}} = a + \sqrt{5}b$

5. Simplify:

(i)  $(7)^{\frac{5}{6}} \times (7)^{\frac{2}{3}}$

(ii)  $\frac{(8)^{\frac{1}{2}}}{(8)^{\frac{2}{3}}}$

(iii)  $(25)^{\frac{3}{2}}$

(iv)  $\left(\frac{81}{49}\right)^{-\frac{3}{2}}$

(v)  $\left(\frac{32}{243}\right)^{-\frac{4}{5}}$

(vi)  $(1^3 + 2^3 + 3^3)^{\frac{1}{2}}$

(vii)  $\left[5\left(8^{\frac{1}{3}} + 27^{\frac{1}{3}}\right)^3\right]^{\frac{1}{4}}$

(viii)  $\left(\frac{3}{4}\right)^3 \left(\frac{4}{3}\right)^{-7} = \left(\frac{3}{4}\right)^{2x}$

(ix)  $\frac{3^{3x} \cdot 3^{2x}}{3^x} = \sqrt[4]{3^{20}}$

(x)  $5^{x-3} \times 3^{2x-8} = 225$

## Science

### General Instruction:

- Make a separate notebook for holiday homework.
- Make diagrams wherever required.

### Physics

1. Solve the Exercise questions of lesson motion.

### Chemistry

2. Why does water gets cooled in an earthen pot?
3. Why should we wear cotton clothes during summer?
4. Why do we feel more comfortable under a fan when we perspire?
5. Why do we see water droplets on the outer surface of a glass containing ice-cold water?
6. Convert the following into Celcius scale?

(i) 293 K (ii) 470 K

7. Convert the following temperature into the Kelvin scale?

(a) 25°C (b) 373°C

8. Convert the following °C scale into Farenheit scale?

(a) 100°C (b) 300°C

### Biology

9. Define cell & Cell theory.
10. Write short notes on:
  - (a) Nucleus
  - (b) Endoplasmic Reticulum
  - (c) Golgi Bodies
  - (d) Mitochondira
11. Draw well labeled diagram of Plant cell or Animal cell on chart paper / Thermocol?
12. Write 10 scientists name, their work & achievements? Also paste their photographs?

### Social Science

**Note : All questions are compulsory.**

1. Why did the French government increase the taxes?
2. What do you know about Abbe Sieyes?
3. Who was the leader of Jacobin Club?
4. What was Directory?
5. Explain any five features of the constitution of 1791, farmed by the National Assembly in France.
6. Democracy is considered the best form of government. Explain.
7. "India has a large coastline which is advantageous". Explain.
8. Which tropic divides India into almost two equal parts?

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