

**NORTH-EX PUBLIC SCHOOL**  
**(Senior Secondary, Affiliated To CBSE)**  
**School Block, Jain Nagar, Sector-38, Rohini, Delhi-81**  
**WINTER HOLIDAY HOMEWORK**  
**Class IX**

**English**

1. Complete your art integrated project and submit it after holidays.
2. Write a descriptive paragraph on a social figure you admire the most.
3. Sumit decided to write a story, but after sometime he could not complete the story, as he had lost interest.

Complete the story that begins as follows:

“Once the fairies of the trees set out to choose a dwelling places...”

4. you recently visited the Ranthambore tiger reserve and were enchanted with the wilderness and natural beauty of the place. You also had an encounter with the tigers roaming freely. Describe your experience in not more than 100- 120 words through a diary entry.
5. Learn and revise PT-2 syllabus.

**कक्षा नवमी**

- प्रश्न 1. 'विज्ञान का मानव विकास में योगदान' विषय पर लगभग 120 शब्दों में अनुच्छेद लिखिए।  
प्रश्न 2. जीवन अग्निपथ के समान है। इस पथ पर चलने के लिए हमें क्या करना चाहिए एवं क्या नहीं करना चाहिए? अपने शब्दों में स्पष्ट कीजिए।  
प्रश्न 3. निरंतर बढ़ते वायु प्रदूषण पर चिंता व्यक्त करते हुए दो मित्रों के बीच लगभग 100 शब्दों में संवाद लिखिए।  
प्रश्न 4. अनुस्वार व अनुनासिक युक्त दस-दस शब्द लिखिए।  
प्रश्न 5. अर्थ के आधार पर वाक्य के सभी भेदों के दो-दो उदाहरण लिखिए।

**WINTERHOLIDAYHOMEWORK**

**SCIENCE (IX)**

1. Calculate the molar mass of the following substances.
  - (a) Ethyne,  $C_2H_2$
  - (b) Sulphur molecule,  $S_8$
  - (c) Phosphorus molecule,  $P_4$  (Atomic mass of phosphorus = 31)
  - (d) Hydrochloric acid, HCl
  - (e) Nitric acid,  $HNO_3$
2. Explain with examples (i) Atomic number, (ii) Mass number, (iii) Isotopes and (iv) Isobars. Give any two uses of isotopes. 9.  $Na^+$  has completely filled K and L shells. Explain.

3. A bullet of mass 15 g has a speed of 400 m/s. What is its kinetic energy? If the bullet strikes a thick target and is brought to rest in 2 cm, calculate the average net force acting on the bullet. What happens to the kinetic energy originally in the bullet ?

4. (a) Define power. Give the SI unit of power.

(b) A boy weighing 40 kg carries a box weighing 20 kg to the top of a building 15 m high in 25 seconds. Calculate the power. ( $g = 10 \text{ m/s}^2$ )

5. How do you differentiate between capture fishing, mariculture and aquaculture?

### Social Science

Q1. Explain the role of Technology in enabling globalization.

Q2. Why India opt for Multi party system? Was it better than others? Explain with suitable reasons.

Q3. Why should we shift to non-conventional energy resources?

Q4. Write a **Debate** on Roadways Vs Railways. (Support any one with suitable arguments)

Q5. **Project work**

\* Every student has to **compulsorily** undertake any one project from the following:-

**Consumer Awareness**

**OR**

**Social Issues**

**OR**

**Sustainable Development**

**\*All work to be done in Test registers and Submit your project file separately as creative as you can.**

### **Computer Science**

Q1. Write the paragraph on the topic “ Knowledge is Power “ in MS – Word with formatting (Pg- 197).

Q2. Draw the formatting Word Art Text buttons in test register from Pg. no. 211.

Q3. Draw the different types of slide layouts with explanation in test register from Pg. no. 230.

Q4. Create a table student in MS-Word with 5 rows and 2 columns.

Q5. Create a presentation on “ Air Pollution “ in PowerPoint (min. 6 slides)

Note: Do all the practical work in the file printout form.

Revise Chapter- 8 to 11 completely.

## MATHS

1. Find the value of  $k$  for which  $(x-k)$  is a factor of the polynomial  $f(x) = x^5 - k^2x^3 + 2x + k - 3$ .
2. Find the values of  $m$  and  $n$  so that the polynomial  $x^3 - mx^2 - 13x + n$  has  $(x-1)$  and  $(x+3)$  as factors.
3. Factorise  $(x - 3y)^3 + (3y - 7z)^3 + (7z - x)^3$ .
4. Simplify  $(x^2 + y^2 - z^2)^2 - (x^2 - y^2 + z^2)^2$ .
5. Complete lab manual , activities as given in the class.