

## Class IX - Holiday Homework (2017-18)

### Maths

To collect information for any of the following topics :

1. Identities  $(a+b)^3$ ,  $(a-b)^3$ ,  $a^3 - b^3$  etc.
2. Areas of parallelograms lying on the same base and between the same parallels.
3. Representation of irrational numbers on the number line
4. Square root spiral
5. Area of Trapezium
6. Snowflakes
7. Factorization of Polynomial
8. Theorems on circles
9. Coordinate Geometry
10. To find Centroid /Orthocenter/ circum centre/Incentre of a triangle and their uses in daily life
11. Patterns in numbers
12. Inequality in a triangle
13. Crossword Puzzle
14. Probability
15. Hanoi's Tower
16. Volume and Surface area of a cylinder/cone sphere
17. Comparison of volume of a cone and cylinder
18. Vedic Maths
- Any other topic related to class IX syllabus
19. Maths in Piano
20. Maths in Music & Dance
21. Maths in Disaster Management

### Science

Students can work in pairs on any of the following given topics for making models/projects/one minute activity. Only biodegradable material will be used.

Topics – Food & Technology, Energy, Communication, Universe, Human Welfare, Teaching Aids, Science & Technology, Robotics, Sustainable Development or any topic of your choice.

**Social Science** – Prepare a project on Disaster Management not exceeding 15 pages which should include the following heads :- Preface, Index, Acknowledgement, Detailed report on the topic under necessary heading (meaning, causes, effects, precautions), Bibliography, Teachers' Evaluation Sheet  
Student may take support from various authorities and organizations like Disaster Management Authority, Fire Service, Police, NGOs working for Disaster Management etc.

Any one disaster – Earthquake, Volcanoes, Landslides, Fire, Accident, Flood, Drought, Cyclone

**Foundation of IT** - Create a file in MS Word on types of computer for example:- 1.Embedded computer ; 2.Programmable computer; 3.Personal computer ; 5.Workstation; 6.Mainframes; 7. Super computer

**Home Sc.** – 1) Observe and record motor skills in a 3 year old child      2) Record behavioural changes in an adolescent through observation method among the peer group 3) Prepare a collage/chart to show the role of family members.

**English** - (Long reading text - Three Men in a Boat)

1. Read chapters 1 to 10
2. Write 10 diary entries based on important incidents from the novel (150-200 words),
3. Create interesting character sketches of the 3 friends, using the following points :  
Their appearance, things they said, how they acted, their feelings about themselves, others' attitude towards them, interesting quotes and any additional information.

**हिन्दी:-** छायावाद के चार प्रमुख स्तम्भों का सचित्र जीवन परिचय करें।