



SPRINGFIELD PUBLIC SCHOOL

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CLASS IX

MATHEMATICS

- Do revision of periodic test syllabus
1.Ch-9 (Area of parallelogram and Triangles)
2.Ch -13 (Surface area and volume)
- NCERT questions + examples and extra questions from any competitive book.
- **Activity:** Make 3-D shapes of cube , cuboid , cylinder, sphere ,hemisphere, cone of different dimensions and calculate their total surface area , curved surface area and volume.
- **Solve the following questions:**

1) Find which of the variables x , y , z and u represent rational numbers and which irrational numbers:

(i) $x^2 = 5$ (ii) $y^2 = 9$ (iii) $z^2 = .04$ (iv) $u^2 = \frac{17}{4}$

2) Find three rational numbers between

(i) -1 and -2 (ii) 0.1 and 0.11

(iii) $\frac{5}{7}$ and $\frac{6}{7}$ (iv) $\frac{1}{4}$ and $\frac{1}{5}$

3) Insert a rational number and an irrational number between the following :

(i) 2 and 3 (ii) 0 and 0.1 (iii) $\frac{1}{3}$ and $\frac{1}{2}$

(iv) $\frac{-2}{5}$ and $\frac{1}{2}$ (v) 0.15 and 0.16 (vi) $\sqrt{2}$ and $\sqrt{3}$

(vii) 2.357 and 3.121 (viii) $.0001$ and $.001$ (ix) 3.623623 and 0.484848

(x) 6.375289 and 6.375738

4) Represent the following numbers on the number line :

$7, 7.2, \frac{-3}{2}, \frac{-12}{5}$

5) Locate $\sqrt{5}$, $\sqrt{10}$ and $\sqrt{17}$ on the number line.

6) Represent geometrically the following numbers on the number line :

(i) $\sqrt{4.5}$ (ii) $\sqrt{5.6}$ (iii) $\sqrt{8.1}$ (iv) $\sqrt{2.3}$

7) Express the following in the form $\frac{p}{q}$, where p and q are integers and $q \neq 0$:

(i) 0.2 (ii) $0.888\dots$ (iii) $5\bar{2}$ (iv) $0.\overline{001}$

(v) $0.2555\dots$ (vi) $0.\overline{134}$ (vii) $.00323232\dots$ (viii) $.404040\dots$

8) Show that $0.142857142857\dots = \frac{1}{7}$

9. Factorize : $(a - b)^3 + (2b - 3c)^3 + (3c - a)^3$

10. Factorize : $(3m^2 - 2m)(6 - 3m^2 + 2m) - 5$.

11. Factorize : $9(a - b)^2 + 30(a - b)(a + b) + 25(a + b)^2$

12. Factorize : $x^2(x - 2y) + 3y^2(x - 2y) + z(2y - x)$

13. Plot the points A (1, 4.5); B (-1, 0), C (1, -4.5) and D (3, 0) on a graph paper. Name the figure ABCD and find the area of ABCD.
14. In which quadrant do the following points lie. i) (-2, 4) ii) (3, -1) iii) (-1, 0)
15. Show that the bisectors of the base angles of triangle can never enclose a right angle.
16. $\angle Q > \angle R$, PA is the bisector of $\angle QPR$ and $PM \perp QR$. Prove that $\angle APM = \frac{1}{2}(\angle Q - \angle R)$.
17. Evaluate : $107^3 - 93^3$.

SOCIAL SCIENCE

- Make Power point presentation of chapter socialism in Europe and Russian revolution.
- Revise the following chapters for periodic test:-
 1. Nazism and the rise of Hitler
 2. Working of institution
 3. Food security of India
 4. Drainage
 Rivers:(identification only)

(a) The Himalayan River Systems: The Indus, The Ganges, and The Satluj

(b) The Peninsular Rivers: The Narmada, The Tapi, The Kaveri, The Krishna, The Godavari, The Mahanadi

Lakes: Wular, Pulicat, Sambhar, Chilika, Vembanad, Kolleru.

Chapter 1: The French Revolution: Outline map of France (for locating and labeling/identification)

1. Bordeaux
2. Nantes
3. Paris
4. Marseilles

Chapter 3: Nazism and the Rise of Hitler: Outline Map of World (for locating and labeling/identification)

5. Major countries of Second World War

Axis Powers – Germany, Italy, Japan

Allied Powers – UK, France, Former USSR, USA

6. Territories under German expansion (Nazi power)

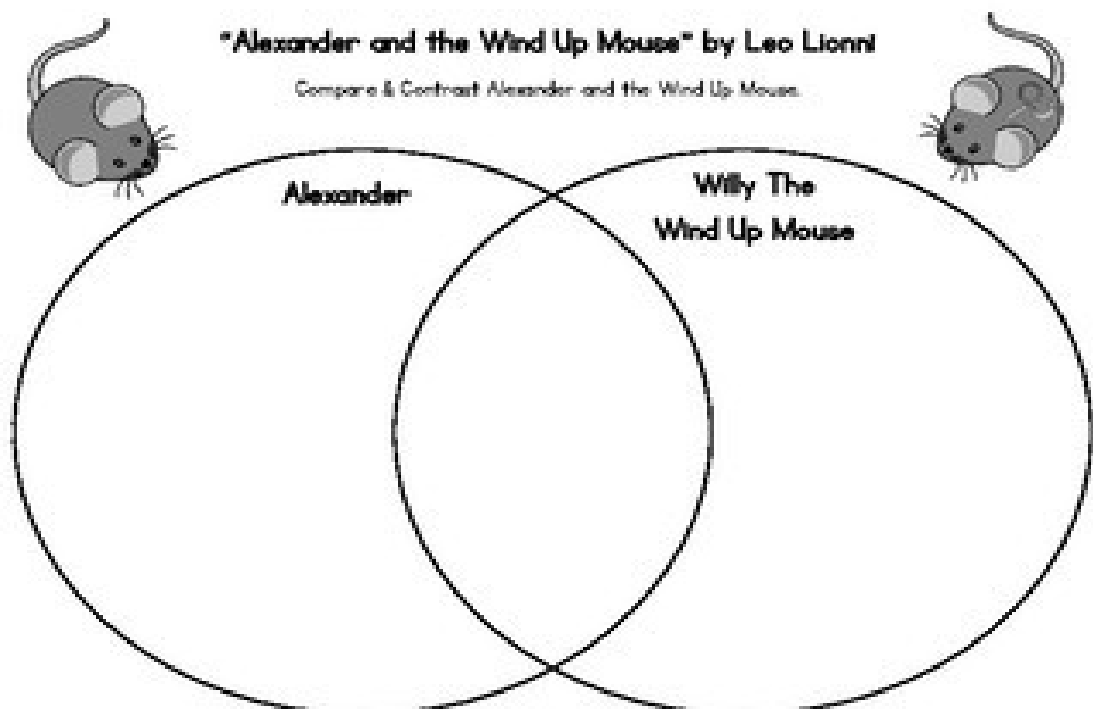
Austria, Poland, Czechoslovakia (only Slovakia shown in the map), Denmark, Lithuania, France, Belgium

SCIENCE

- Solve 5 sample papers in separate notebook from Exam idea/ Reliable question Bank.
- Make a visual presentation of any two topics : Light, Sound, Diversity in living organisms , Cell , Structure of atom.
- Visit any Hospital /Pharmaceutical industry or any of the production plant and explain the use of scientific equipment, technology in their areas.
- **Periodic test syllabus** : SOUND

English

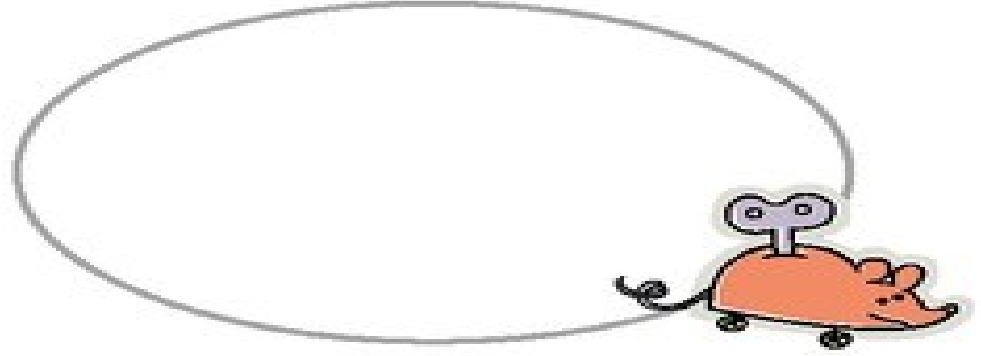
- Literature: Revise chapters- My Childhood, Packing.
- Grammar: Revise Parts of Speech.
. Novel: Read novel:- **Alexander and the Wind Up Mouse** by Leo Lionni and prepare a book review and prepare analytical questions related to the story.
- Compare and Contrast Alexander and the Wind Up Mouse in the following circles.



Inferring

On the first page of the story, there is a scream and a crash. Make an inference - what might have happened?

Draw a picture of the scream.



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Hindi

1. संचयन के अतिरिक्त प्रश्नोंतर याद करने हैं ।
2. काव्य खंड के अतिरिक्त प्रश्नों को उत्तरपुस्तिका में लिखकर लाने हैं और याद करना है ।
3. विद्यालय में मनायें गए कार्निवल के विषय हेतु अपने मित्र को पत्र लिखिए ।



WINTER BREAK