

INTERNATIONAL PUBLIC SCHOOL BHOPAL

SUMMER ASSIGNMENT 2017-18

CLASS-XI

ENGLISH

- Q.1. Draft a poster to bring awareness among the people towards "the plight of senior citizens in our society."
- Q.2. Read, analyze and interpret the novel "The Canterville Ghost."
- Q.3. Write summary of the novel.(150-200 words)
- Q.4. Which character impressed you the most and why?
- Q.5. Do you think the protagonist should have been some other character in the novel? Why?
- Q.6. Would you recommend this book to your friends? Why?
- Q.7. Bring out the figures of speech used in the novel and list the new vocabulary along with their meaning and use them in the sentences of your own.
- Q.8. Discuss the use of supernatural elements in the story "The Centerville Ghost", by giving evidence from the novel.
- Q.9. Supposing you had been a member of the Otis family, how would you have reacted to see the Canterville Ghost? Express your feelings in keeping with the behavior of the other members of your family.
- Q.10. Discuss the use of wit and humour in the story.

* All the questions are to be done in English Class Work notebook.

PHYSICS

General Instructions:

1. Perform any two of the given activities with the help of working models if necessary.
2. Prepare a report on the same.

ACTIVITIES

- 1) To make a paper scale of given least count, e.g. 0.2cm, 0.5 cm.
- 2) To study the variation in range of a Projectile with angle of projection.
- 3) To study the conservation of energy of a ball rolling down on an inclined plane (using a double inclined plane).
- 4) To study and explain the effect of heating on a bi-metallic strip.
- 5) To note the change in level of liquid in a container on heating and interpret the observations.
- 6) To study the effect of detergent on surface tension of water by observing capillary rise.
- 7) To observe the decrease in pressure with increase in velocity of a fluid.
- 8) To demonstrate inter-conversion of potential and kinetic energy.
- 9) To demonstrate conservation of linear momentum.

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- 10) To study variation of volume of a gas with its pressure at constant temperature using a doctor's syringe.
- 11) To study Bernoulli's theorem with simple illustrations
- 12) To prove that heat capacities of equal masses of different materials are different.
- 13) To produce longitudinal and transverse waves.
- 14) To demonstrate the phenomenon of beats, due to superposition of waves produced by two sources of sound of slightly different frequencies
- 15) To verify the law of moments.

NB:- One can choose other titles also but it should be syllabus related topics.

FINE ART

- Make two traditional art (like Warli, Kalamkari, Madhubani)
- Paintings should be framed properly.

PHYSICAL EDUCATION

General Instruction

- ❖ Complete the project file of Athletics
- ❖ Handmade file is compulsory for all students
- ❖ You can paste the printed photographs in file

1. History of Athletics.
2. Rules and regulation.
3. Track diagram with dimension.
4. Details of equipment used in Athletics.
5. Skill and technique used in Athletics. .
6. Terminologies and important tournaments
6. Award related to Athletics..
7. Details of any five celebrities related to Athletics.

COMPUTER SCIENCE

Topic: Chap 1 Evolution of computers

- 1) Develop a PPT on following topic (any one)
 - Generation of Computer
 - Types of Computer
 - Operating System Function i.e. Process management, Storage management, Information management.

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MATHEMATICS

Q.1 Find the value of x and y if $2 + (x + iy) = 3 - i$

Q.2 Find the conjugate of $\frac{(2+3i)^2}{2-i}$

Q.3 Find non-zero integral solutions of $|1 - i|^x = 2^x$

Q.4 If $\frac{(a+i)^2}{2a-i} = p + iq$ then show that $p^2 + q^2 = \frac{(a^2+1)^2}{(4a^2+1)}$

Q.5 Simplify $(7 - 5i)(3 + i)$

Q.6 Find the root of $5 + 12i$

Q.7 Express in polar form $\frac{1+2i}{1-3i}$

Q.8 Solve quadratic equation $2x^2 - 4x + 3 = 0$

Q.9 Find the modulus and argument of complex no. $\frac{1+i}{1-i}$

Q.10 If $Z = 2 - 3i$ show that $Z^2 - 4Z + 13 = 0$ and hence find the value of $4Z^3 - 3Z^2 + 169$

CHEMISTRY

Investigatory Project

S. No.	Investigatory Project	Roll No.
1	Study of common food adulterants in fat, butter, sugar, turmeric powder, chilli powder and pepper	(1,3,5,7,9,11)
2	Study of rate of fermentation of flour, fruit juices and vegetable juices	(2,4,6,8,12,22)
3	Extraction of essential oil present in saunf (aniseed), ajwain (carum), illaichi (cardamom)	(13,10,15,17,19, 21,20,23,14)
4	Study of sterilisation of water with bleaching powder	(25,27,29,31,33,)
5	Study of different drugs and their classification	(25,32,36,39,37)

Instructions

1. Front page : Glossy paper (Same for all)
2. Sequence :- Front page, certificate, acknowledgement Index.
3. Project should be of minimum 15-20 pages
4. Result conclusion Bibliography.