



**New G.M.T. Sen. Sec. Public
School**



**Summer
Holidays
Homework**

XII Science





PREFACE

Dear Parents and Students,

Summer vacation is around the corner, bringing with itself a much needed respite from hectic school days. We hope that you will thoroughly enjoy the vacations and make the most of this summer. While it is indeed important that you relax and refresh yourselves, it is also important that you exercise your minds.

Keeping this in mind, we have designed various exciting activities to keep the students engaged and active during the summer vacation. These fun projects/ assignments would enhance learning skills, help understand concepts better, and make for a great crash course aimed at improving academic output.

These activities will not only help you to revise what was taught, but will also enrich your knowledge. These projects will be assessed as Subject Enrichment Activity, Portfolio or Art Integrated activity.

We encourage parents to motivate and support the students to ensure the given work is completed in time, to the best of their ability. Your support and encouragement both have a huge impact on your child's learning ability.

Wishing you a fun filled, safe summer vacation.

Summer Tips to be followed:

- “A healthy mind resides in a healthy body”- Pay attention to your health, go for morning and evening walks, drink lots of water, avoid the consumption of junk food, eat healthy and stay healthy.
- Open your mind for reading newspapers, novels, blogs and stories that will help you in increasing your vocabulary.
- Indulge yourself into activities like cooking, singing, dancing, aerobics, cycling, trekking, swimming, art and craft, river rafting and gardening. And share your experience with your family and friends.
- Spend quality time with your grandparents and parents, talk to them regarding their experience of school.

English

Project work

Subject	Description	To be Done
English	Roll No.1-10 Invitation Card for birthday celebration	On A4size sheet
	Roll No.11-20 Invitation Card for marriage ceremony	On A4size sheet
	Roll no. 21-35 Invitation Card for Mundan Ceremony (Note- Card should be decorated)	On A4size sheet

Physics

Activity

A. Complete practical note book

B. Suggested Projects

1. Half wave and full wave rectifier
2. Ac Generator
3. Transformer
4. Electromagnetic Induction
5. Moving coil Galvanometer
6. Semiconductor
7. Total internal Reflection and its application
8. Application of Interference
9. Telescope and it's type
10. Diffraction

Chemistry

Experiments provide insight into cause-and-effect by demonstrating what outcome occurs when a particular factor is manipulated. Prepare a CHEMISTRY INVESTIGATORY PROJECT on the topic assigned according to Roll no .Use A4 size sheets for the project including various newspaper clippings, images, latest discoveries and inventions relevant to the topic. Follow the given headings in the project:

- a) INTRODUCTORY PAGE
- b) CERTIFICATE
- c) ACKNOWLEDGEMENT
- d) INDEX/CONTENTS
- e) INTRODUCTION
- f) AIM
- g) CHEMICALS REQUIRED
- h) PROCEDURE/EXPERIMENT(S)
- i) OBSERVATIONS

j) RESULT

k) CONCLUSION

l) BIBLIOGRAPHY

1. Study of presence of oxalate ions in guava fruit at different stages of ripening. (Roll no.1,9,17,25,33)
2. Study of quantity of casein in different samples of milk.(Roll no.2,10,18,26,34)
3. Study of soyabean milk and its comparison with the natural milk with respect to curd formation, effect of temperature etc.(Roll no.3,11,19,27,35)
4. Study of effect of Potassium Bisulphate as food preservative under various conditions (temperature, concentration, time, etc.) (Roll no.4,12,20,28,36)
5. Study of digestion of starch by salivary amylase and effect of pH and temperature on it. (Roll no.5,13,21,29,37)
6. Comparative study of the rate of fermentation of following materials: wheat flour, gram flour, potato ivice. carrot ivice, etc. Roll no.6,14,22,30,38)
7. Extraction of essential oils present in Saunf (aniseed), Ajwain (carum), Elaichi (cardamom). (Roll no. 7,15,23,31,39)
8. Study of common food adulterants in fat, oil, butter, sugar, turmeric power, chili powder and pepper. (Roll no.8,16,24,32).
9. Complete your practicals as discussed in the class.

Biology

Prepare a project based on your syllabus.

- **Project should be based on the following headings...**
 - Title of the project
 - Index
 - Reason/ relevancy for choosing the topic.
 - Introduction of the topic
 - Detailed Information of the topic
 - Research work/ Case studies
 - Conclusion
 - Bibliography
- Prepare your practical record and complete all practicals in it. Complete the given assignments in the homework notebook.

Mathematics

- **Students will prepare a practical file.**
- Each student will prepare a **Research Project** (according to the allotment) out of the topics given below:
 1. Graphs of Inverse trigonometric functions
 2. Concept of integration and its Real-life applications
 3. Concept of Vectors and Vectors and scalars quantities in real life.
 4. Direction cosines and direction ratios in three-dimensional geometry
 5. Concept of Continuity and its significance
 6. Concept of Conditional Probability and Baye's Theorem
 7. Concept of Matrices and its Significance
 8. Concept of Determinants and its applications

9. Concept of derivative and its real-life applications

10. Linear Programming

Project must include:

- Index
- Certificate
- Acknowledgement
- Introduction
- Content
- Conclusion
- Bibliography

Students must choose the content wisely, since a lot of research, dedication, and patience will be required to complete the project. Also, research is the key to any assignment that you do.

The project should be objective-oriented, detailed, informative, unique, and understandable.

Looking forward to your creativity and innovation

HAPPY LEARNING!!

Physical Education

Project work:

Make one project for any game of your choice.

1. Athletics
2. Archery
3. Badminton
4. Kho – Kho
5. Chess
6. Volleyball
7. Basketball
8. Judo
9. Taekwondo
10. Skating.

Unit -1

You choice any one game and write the game.

- History of the games
- Latest Rules
- Fundamental Skills
- Specification of play field and related sports equipment
- Related sports terminology

Unit – 2

- Importance tournament and venues
- Sports personalities
- Sports Awards
- Proper Sports Gear and its Importance
- Common sports injuries and its prevention
- Specific Exercise of Warm up and Conditioning

Music

Project file.

Topic:-

1. Description of following Raags:- Raag Bhairav ka Bada Khayal with notation, Chhota Khyal and Tarana. Raag Bageshri and Raag malcons, ka Chhota Khayal Bandish with notation and Tanas .
2. Anyone Dhamar
3. Description of Raag shuddh sarang.
4. Description Of following Talas:-
Jhaptala, Rupak Taal, Dhamar Tal – Igun, Dugun and Chaugun
5. Model of any one Instrument:-
Tanpura, Harmonium, Sitar, Tabla, Guitar, Dholak, Damru and Veena.