



ALLONS PUBLIC SCHOOL, BEMETARA (C.G.)

Summer Vacation Assignment (2024-25)

CLASS- XII SCIENCE

Subject	Subject Teacher's name	Home Assignment / Project work																																												
ENGLISH		<p>1. You are Sports Secretary of Allons Public School, Bemetara. Draft a notice not more than 50 words for your school notice board asking the students to enlist their names for participation in various events to be held on the Summer Camp of your school. Sign as Lalit/Lalita.</p> <p>2. You have received an invitation to be the judge for a literary competition in Allons Public School. Send a reply not more than 50 words, confirming your acceptance. You are Mohan/Mohini.</p> <p>3. You are Smitha/Sunil, Secretary AVM Housing Society. You are going to organize a blood donation camp. Write a notice in not more than 50 words, urging the members of your society to come in large numbers for this noble cause.</p> <p>4. You are Rohan/Rohini of Class XII. You are interested in pursuing a course in visual communication. You have seen an advertisement issued by the National Institute of Communication, Pune, offering courses in Media and Communication. Write a letter to the Director seeking information about their courses, fee structure, placement opportunities, etc.</p> <p>5. Your state government has banned the use of plastic bags. You are Prince, a reporter of The Hindustan Times. Write a report in 100-125 words on how the ban is being ignored and what damage the indiscriminate use of plastic bags is causing to the environment.</p>																																												
PHYSICS	Mr. M. K. Chauhan	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Name</th> <th style="width: 50%;">Project</th> </tr> </thead> <tbody> <tr><td>ADITI SHARMA</td><td>Transformer and it's applications</td></tr> <tr><td>ADITYA TIWARI</td><td>Gauss Law and it's applications</td></tr> <tr><td>AISHWARYA NARAYAN NETAM</td><td>Telescope and it's Uses</td></tr> <tr><td>ANISH CHANDRAKAR</td><td>Microscope and it's uses</td></tr> <tr><td>ANJALI SINGH</td><td>Total internal reflection</td></tr> <tr><td>ANUJ KUMAR</td><td>Refraction and dispersion of light by prism</td></tr> <tr><td>ATULYA SINGH BAIS</td><td>Interference of light</td></tr> <tr><td>BHAVESH SAHU</td><td>Diffraction of light</td></tr> <tr><td>CHIRANJIV DHRUW</td><td>Dispersion of light</td></tr> <tr><td>CHITRESH TIWARI</td><td>Refraction of light and it's uses</td></tr> <tr><td>HEEM VIGYAWAR</td><td>Particle nature of radiation and it's applications</td></tr> <tr><td>KHUSHI SAHU</td><td>Wave nature of particles</td></tr> <tr><td>OM CHANDRAKAR</td><td>Semiconductor diodes and their applications</td></tr> <tr><td>P R SHIV SHANKAR SONWANI</td><td>Semiconductors materials and their uses</td></tr> <tr><td>RAHUL GOTA</td><td>Different types of capacitors and their uses</td></tr> <tr><td>MD. RAJA</td><td>Different types of resistors and their uses</td></tr> <tr><td>RAJEEV TANDON</td><td>Different types of inductors and their uses</td></tr> <tr><td>REKHA BANJARE</td><td>Galvanometer and it's uses</td></tr> <tr><td>SONU RAM</td><td>Resonance in RLC series circuits</td></tr> <tr><td>SHRIJAN CHANDRAKAR</td><td>Electromagnetic waves</td></tr> <tr><td>TAKESHWAR SAHU</td><td>Different types of magnetic material and their uses</td></tr> </tbody> </table>	Name	Project	ADITI SHARMA	Transformer and it's applications	ADITYA TIWARI	Gauss Law and it's applications	AISHWARYA NARAYAN NETAM	Telescope and it's Uses	ANISH CHANDRAKAR	Microscope and it's uses	ANJALI SINGH	Total internal reflection	ANUJ KUMAR	Refraction and dispersion of light by prism	ATULYA SINGH BAIS	Interference of light	BHAVESH SAHU	Diffraction of light	CHIRANJIV DHRUW	Dispersion of light	CHITRESH TIWARI	Refraction of light and it's uses	HEEM VIGYAWAR	Particle nature of radiation and it's applications	KHUSHI SAHU	Wave nature of particles	OM CHANDRAKAR	Semiconductor diodes and their applications	P R SHIV SHANKAR SONWANI	Semiconductors materials and their uses	RAHUL GOTA	Different types of capacitors and their uses	MD. RAJA	Different types of resistors and their uses	RAJEEV TANDON	Different types of inductors and their uses	REKHA BANJARE	Galvanometer and it's uses	SONU RAM	Resonance in RLC series circuits	SHRIJAN CHANDRAKAR	Electromagnetic waves	TAKESHWAR SAHU	Different types of magnetic material and their uses
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CHEMISTRY	Mr. S. Kundu	<p><u>Project No. (1 to 8)</u> <u>Title of the Project</u></p> <ol style="list-style-type: none"> 1 • Study of the presence of oxalate ions in guava fruit at different stages of ripening. 2 • Study of quantity of casein present in different samples of milk. 3 • Preparation of soybean milk and its comparison with the natural milk with respect to curd formation, effect of temperature, etc. 4 • Study of the effect of Potassium Bisulphate as food preservative under various conditions (temperature, concentration, time, etc.) 5 • Study of digestion of starch by salivary amylase and effect of pH and temperature on it. 6 • Comparative study of the rate of fermentation of following materials: wheat flour, gram flour, potato juice, carrot juice, etc. 7 • Extraction of essential oils present in Saunf (aniseed), Ajwain (carum), Illaichi (cardamom). 8 • Study of common food adulterants in fat, oil, butter, sugar, turmeric power, chilli powder and pepper. <p>NOTE:</p> <ul style="list-style-type: none"> • Front page, certificate must be printed and other pages must be hand written. • Students have to submit their individual project after reopening of school. 										
MATHS	Mr. K. Thakur	<p>Write below 2 activities in your note copy.</p> <p>ACTIVITY - 1 To explore with graph of all trigonometric & inverse trigonometric function. Write its domain , range and principal values</p> <p>➤ Practice questions from Reference Book & worksheet (Matrix & Determinants). (PT 1 Syllabus)</p>										
BIOLOGY	Mr. Sourabh Sharma	<ol style="list-style-type: none"> 1. Effects of Different External Factors in Changing the Effectiveness of Various Antibiotics 2. Can I Eat That 3. Effectiveness of Various Spices in Promoting or Inhibiting the Spoilage Rate of Food 4. There's a Germ Out There 5. Study of the Effects of Green Tea on Oral Bacteria 6. Mystery Behind Bacteria Levels in Gym Equipment 7. Fungus Among Us 8. Yeast Past Its Code Date 9. Demolishing Dental Bacteria 10. Does the Surface Clarity of Plastic Bottles Affect Solar Water Disinfection 11. Effects of Temperature on Bacterial Pigmentation 12. Isolation of Staphylococcus aureus from Raw and Pasteurized Milk 13. Is Garlic Antibacterial 14. How Much Bacteria Is on Your Retainer 15. What Is the Best Way to Clean Your Toothbrush 16. Study of Bacteria Growth in Varying Acidic Environments 										

17. Which Acne Medications Are Most Effective
18. Beleaguered Beef
19. Study of the Health Benefits of Spicy Cooking
20. What Are the Effects of Ultraviolet Light on Bacteria Mortality
21. The Five-Second Rule
22. Bacteria Affected by Ultraviolet Light
23. Do Bacteria Like Gases
24. Raw meat
25. pH Tolerance of Microbes
26. Which Ground Beef Has the Least Bacteria
27. Do Different Dilutions of Disinfectants Affect the Development of Bacterial Resistance
28. Study On Gene Therapy
29. Study Of Effects Of Antibiotics On Microorganisms
30. To Study the Coagulable And Non-Coagulable Milk Proteins
31. Mitosis in Onion Root Tip Cells
32. Cellulitis
33. What Music Does Bacteria Enjoy the Most
34. How Does Light Affect Yeast Drug Addiction
35. Possible Effects of Maternal Behaviour on Foetal Development
36. Pollination
37. To Study Drug Resistance In Bacteria Using Antibiotics
38. The Effect of Oil Spills on Oceans
39. Effects of Fertilisers, Manure and Polythene on the rate of elongation of the Hypocotyl
40. Spermatogenesis
41. Study on Enzymes
42. Coffee Addiction
43. Effects of Fertilisers, Manure and Polythene on the rate of elongation of the Hypocotyl
44. Alzheimer's And Dementia
45. Microbes in Human Welfare
46. Detailed Study on Infertility, its Causes and Treatment
47. Eye Diseases
48. DNA Fingerprinting
49. Recombinant DNA Technology In Today Medicine
50. How to See DNA with the Naked Eye
51. Human Genome Project
52. Dispersal of Seeds
53. Harmful Effects of Mobile Radiation
54. On Recent Diseases - Ebola
55. Sickle Cell Anaemia and its Prevention
56. How Cigarettes Affect Your Health
57. Study on Probiotics and their Preparation
58. The Way Blood Works
59. Testing the toxicity of Marine Pollutants using Daphnia
60. Antibiotics Naturally
61. What is the Best Way to Disinfect a Toothbrush
62. Erasing and Implanting Human Memory
63. Does Price and Vitamin C Affect How Fast Fruits Rot
64. Strawberry DNA Extraction
65. Effect of Cannabis on the Human Body
66. Ability of Curry and Cinnamon to Inhibit Bacterial Growth
67. Which Cheese Grows Mould The Fastest
68. Using Garden Mulch to Make a Bug Zoo
69. Turning to Motor Learning
70. Eye Disorders in Children and Adolescents
71. Human Cloning: Another You?
72. Thigmotropism In Tendrils
73. Brush Away You Smile
74. Eye Can See You
75. Can Dog Drool Kill Germs
76. Growing Yeast: Sugar Fermentation
77. How Does Mould Grow
78. How Does Microwave Radiation Affect Different Organisms
79. What Effect Does Glucose Have on the Longevity of Cut Flowers

80. Diffusion VS Food Colouring
81. Microwave and Germination of Seeds
82. Comparing Varying Levels of Oxygen Aeration in Increasing Plant Production
83. Salt: Friend or Foe
84. Cattails in the Water
85. Cloning 101
86. Heart Rate and Video Games
87. Investigating Seed Tolerance for Freezing Temperatures
88. Fun with Phosphorus
89. What Angle of Impact Has the Most Effect on Making a Bruise
90. Ultraviolet Radiation
91. Do Rats Learn Faster with Peer Pressure
92. Can You Make the Grade
93. The Effect of Alkalis and Acids on Bacterial Growth
94. Saving the World One Yard at a Time
95. Yeast Reproduction in Sugar Substitutes
96. Angina Pectoris
97. Pedigree Analysis
98. Urinalysis
99. Ozone Depletion
100. Does a Mouse Rely More on His Spatial Memory or Vision
101. Conserving Agricultural Irrigation Water by Controlling Transpiration Loss via Wind
102. Effects of Ocean Water as an Irrigation Supplement on the Growth of Rice Seedlings
103. How Does Music Affect Plant Growth
104. Maintaining Correct Balance
105. Effects of Diet on Blood Glucose
106. Ammonia: The Passed Gas
107. Do the Right and Left Ears Hear Notes Differently
108. Got Stamina?
109. Measuring Human Horsepower
110. Factors Affecting Nodule Formation in Legumes
111. What Do Plants Need Most
112. Compost or Fertilizer
113. Effect of Sugar on Bean Plant Growth
114. Does the Color of Light Affect Plant Growth
115. Is Spinach Made in the Shade
116. The Speed of Sprouting Seeds
117. Ethyl Alcohol vs. E. coli
118. Effects of Reading and Working on the Computer on Vision
119. Blowing Off Carbon Dioxide
120. Suck It Up
121. Phytoremediation of Zinc
122. Comparison of the Effectiveness of Organic Worm Castings
123. Is It All Downhill from Here
124. Sunless Sunflowers
125. Does Greater Leaf Diameter Increase Transpiration Rate of Rose Geranium
126. Physiology of Plants in a Simulated Martian Atmosphere
127. Death in a Water Bath
128. Nail-Patella Syndrome Phenotype Expression
129. Effect of Pupil Dilation on Peripheral Vision
130. Are Fingerprints Hereditary
131. Effect of the Timing of the Application of Potassium on Antirrhinum
132. Determining the Effects of Water Temperature and Exposure Terms on Seed Germination
133. Effect of Color on Cherry Trees
134. Hydroponics and Aeroponics
135. Now You See It, Now You Don't
136. Effect of Exercise on Blood Pressure and Pulse Rate
137. Effects of Various Aromas on Animal Behavior
138. Effect of Ingested Fluid Temperature on Basal Body Temperature in Humans
139. Family Fingerprints
140. To Chew or Not to Chew
141. Does Blood Pressure Affect Heart Rate
142. Retinal Glare Recovery

		<p>143. Whose Mouth Is Cleaner 144. How Fibonacci Is Your Face 145. Get a Head Start II 146. Doggy Vision 147. Does Oregano Oil Have an Antibiotic Effect 148. Do Different Diets in Ruminant Animals Affect the Microorganism Colony Growth 149. Does Beta Carotene Prevent Tumour Growth in Plants 150. Growth Rate of Poa pratensis in Pure Humus 151. Diabetes and Exercise 152. The Power of Rat Senses 153. Making of a Potpourri Fertilizer 154. Which Colour is Dominant in Mice 155. Does Varying Feed Affect the Milk of Lactating Caprines 156. Are Mice Territorial 157. Bioartificial Engineered Heart Tissue 158. Effects on the Flow Rate as a Representation of Stroke Volume 159. Do You Hear What I Hear 160. Blood Pressure</p>
IP	Mr. Umesh Kale	<p>1. Differentiate between Data Structure in Pandas- Series & DataFrame – make chart or ppt. OR 1. Different ways to create Series from- Scaler values, Numpy arrays, Dictionary – make char or ppt. 2. Write short notes or ppt on Accessing elements of Series- Indexing & Slicing. OR 2. Write short notes or ppt on Python Libraries.</p>
PE	Mr. Arun Kumar Pal	<p>1. Read and prepare poster presentation to display in school about different yogasanas with precautions and benefits beneficial for treating lifestyle disease. 2. Read learn and prepare display presentation for different sources of food (carbohydrate, fat, protein, vitamins and mineral) including calorific values of various food items , vegetables(veg & non veg) and fruits 3 Prepare a flow chart of committees for the management of sports events with their responsibilities 4. READ n Prepare notes on SAI KHELO INDIA FITNESS TEST IN SCHOOL with pictoral presentation. 5. Read and Prepare notes on RIKLI and JONES SENIOR CITIZEN fitness test</p>
MUSIC	Mrs. Girija Soni	Making the chart of bilambit Bandish, taal Dhamar, Taal Rupak, teen taal

Class Teacher

Coordinator

Principal