

**SHAMBHU DAYAL GLOBAL SCHOOL
HOLIDAY HOMEWORK (2024-25)
CLASS XI SCIENCE**

ENGLISH

RESEARCH PROJECT

TOPICS:

- **Talking Cultures (Speaking Etiquettes) Roll N0-1-4**
- **“Earn While You Learn” Roll No 5-8**
- **Parents should control their kids “Social Media Accounts” Roll No- 9-12**
- **How Depression Affects Human Behaviour? Roll No 13-16**
- **Influence of Modern Technology on the Quality of the Education. Roll N0- 17-20**
- **How has the Role of Women in the Military changed? Roll N0-21-24**
- **Cyber Crime is the New Terrorism. Roll No 25-28**
- **European Influence on Fashion in the world. Roll No- 29-32**
- **Influence of Mother Tongue in English Language. Roll No 33-36**
- **Does Beauty determine how much a person will be successful in life? Roll No-37-40**
- **People Management and Leadership Qualities. Roll No 41-44**

NOTE- This project-Portfolio is a compilation of the work that the students will submit in the first week of July.

- **Individually Student has to prepare The Research Project.**
- **Annual Viva (ASL) will be conducted based on this project only in the month of January.**

***The Project-Portfolios must include the following areas:**

*** Cover page, Title page, school details.**

| | |
|----------------|--|
| | <ul style="list-style-type: none"> *Abstract and Table Content * Statement of purpose/ objectives/Goals * Literature Review * Research Design and Methods * Implication and Contribution to Knowledge (Acknowledgement) * Certificate of completion under the guidance of the teacher. * The 800-1000words essay/script/ Report * If possible, photograph that Capture the positive experience of the students. * Reference (List of resources) <p>NOTE- Research Project Word Limit (800-1000 essay/script/ Report)</p> <p>*The following points must be kept for consideration while assessing the project portfolios</p> <ul style="list-style-type: none"> *Quality of content of the project *Accuracy of information *Adherence to the specified timeline *Content in respect of (spelling, Grammar, Punctuation) *Clarity of thoughts and ideas *Creativity * Knowledge and experience gain |
| PHYSICS | <p>Write down these Two Experiments from NCERT Lab Manual into a new practical file</p> <ol style="list-style-type: none"> 1. Use of Vernier Callipers to <ol style="list-style-type: none"> (i) measure diameter of a small spherical/cylindrical body, (ii) measure the dimensions of a given regular body of known mass and hence to determine its density; and |

| | |
|------------------|--|
| | <p>2. Use of screw gauge to (a) measure diameter of a given wire, (b) measure thickness of a given sheet; and</p> |
| CHEMISTRY | <p>Write down the given practical in your fair practical notebook-</p> <ol style="list-style-type: none"> 1. Quantitative Estimation <ol style="list-style-type: none"> i. Using a mechanical balance/electronic balance. ii. Preparation of standard solution of Oxalic acid. iii. Determination of strength of a given solution of Sodium hydroxide by titrating it against standard solution of Oxalic acid. iv. Preparation of standard solution of Sodium carbonate. v. Determination of strength of a given solution of hydrochloric acid by titrating it against standard Sodium Carbonate solution. 2. Qualitative Analysis <ol style="list-style-type: none"> a) Determination of one anion and one cation in a given salt Cation- lead, copper, arsenic, iron, manganese, nickel, zinc, cobalt. Anion- carbonate, nitrate, sulphate, acetate, nitrite, sulphide. b) Detection of -Nitrogen, Sulphur, Chlorine in organic compounds. |
| BIOLOGY | <p>1. Prepare a detailed research paper, PPT and Spiral bound file from the topic of your choice. List of Investigatory projects-</p> <ol style="list-style-type: none"> a) To isolate caffeine from tea leaves. b) To determine the amount of Vitamin C in selected samples of fruit juices. c) To determine the amount of casein present in different samples of milk. d) To study the presence of insecticides and pesticides in various fruits and vegetables. e) Preparation of soybean milk and its comparison with the natural milk with respect to curd formation, effect of temperature, taste etc. f) Proxymal Supraventricular Tachycardia, Epidermodysplasia verruciformis, Kawasaki Disease, Progeria, Hunter's Syndrome, Genetic Abnormalities, Vampire Disorder, Mad Cow Disease, Fibrodysplasia ossificans Progressiva, Abdominal Cocoon etc <p>Assessment Criterion- Content, Presentation, Research Work, Case</p> |

| | |
|-------------------|--|
| | <p>Activity 5: To find the values of sine and cosine functions in second, third and fourth quadrants using their given values in first quadrant.</p> |
| <p>AI</p> | <p>1-Create projects given in the topics of AI basics, Computer vision and Python. 2-Do given Python programs paste the code as well as the output. List of Python programs:</p> <ol style="list-style-type: none"> 1. Accept two numbers from the user and find the maximum of the two numbers. 2. Write a program to accept principal amount, time and rate of interest from user. Calculate and print simple interest. 3. Write a program to check if year is a leap year or not. 4. Write a python program to swap the value of two variables. 5. Write a python program to check whether the accepted number is positive, negative or zero and display the appropriate message. |
| <p>DTI</p> | <p>Topic 1: Visually Map your Journey from Home to School This task is to visually draw a map of the journey from your home to school. If there are multiple paths, draw multiple paths to reach the school. The mapping will involve both quantitative figures as well as qualitative figures, Quantitative figures could be the distance and time to reach the school, the number of trees, vehicles, people, shops, buildings, lamp posts, etc., even interesting things like number of people wearing colour red dress, talking on mobile, sleeping animals, etc. can be observed and noted. Qualitative figures could be your energy level, the brightness of the sunshine, sound levels, excitement/enthusiasm level, etc.</p> <ol style="list-style-type: none"> 1. Observe 3 quantitative variables and 3 qualitative variables during the journey from your home to school 2. Map the path of the journey on an A3 size sheet of paper. If there are multiple paths do note down these paths 3. Draw and write the names of the major landmarks in your journey on the map according to their location. The size of buildings, trees, etc. needs to be scaled down 4. Mark 5 points along the map and visually show both the quantitative and qualitative variables at these points <p>Topic 2 : Design Charts about the Statistics of your School</p> |

A chart visually represents data or information in the form of numbers and figures. These are some of the common forms of charts:

- (a) Bar Chart,
- (b) Line Chart and
- (c) Pie Chart.

One can make these charts easy to understand by including visuals in its representation. The challenge for you is to look at different statistics concerning your school and make a poster with these charts.

1. Collect information about your school – could be the numbers about students, different classes, teachers and staff members, classrooms, facilities, results, competitions, events, holidays, timings, etc.
2. Each group selects at least 4 different statistics to do information design
3. Ideate how to represent these figures so that they can be understood easily and is interesting to look at
4. You should sketch alternatives, discuss how to improve them and select the best ones to take forward
5. Draw/ Illustrate these as well as you can (you could use colours and textures)

Topic 3: Design Directional Signage for your School

A Signage System helps in wayfinding and locating facilities. It makes use of directional arrows to show direction, visuals to represent the facility and text as additional support. These are used in public spaces like airports, railway/bus stations, hospitals, schools, metros, roadways, museums, etc. The task is to design a signage system for your school to make it easy for identification and locating a facility. The signage can include even fun and interesting elements – using graphics and murals on walls, ceilings and floors.

1. Make a list of all the facilities in your school – Classrooms, labs, staff rooms, library, workshops, toilets, playground, etc.
2. Each group selects at least 6 different facilities to do signage design
3. Ideate how to represent the facilities so that they can be identified easily and is interesting to look at
4. You should sketch alternatives, discuss how to improve them and select the best ones to take forward
5. Draw/ Illustrate these as well as you can (you could use colours) along with text and directional arrows
6. Make paper models of the signage.

PHE

Research project On Roles and Responsibilities of Physical Education Professionals

Topic: - career options in physical education

- Physical education teacher/coach **Roll N0-1-9**
- Fitness trainer **Roll N0-10-18**
- Sports therapist **Roll N0-19-27**
- Recreation therapist **Roll N0-28-36**
- Sports administrator **Roll N0-37-45**
- Sports psychologist **Roll N0-46-53**

The following points must be kept for consideration while assessing the project portfolios

1. Introduction

- Definition of physical education.
- Importance of physical education in society.
- Overview of the project's objectives and structure.

2. Educational Requirements and Training

- Academic qualifications: Degrees in physical education, exercise science, kinesiology, sports medicine, or related fields.
- Certification and licensure: Requirements vary depending on the specific career path but may include certifications from organizations like the American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), or National Academy of Sports Medicine (NASM).
- Practical experience: Internships, volunteer work, and practical training are often valuable for gaining hands-on experience in the field.

3. Career Opportunities in Different Settings

- Schools: Physical education teachers/coaches in elementary, middle, and high schools.
- Colleges and universities: Physical education instructors, coaches, athletic directors, and sports administrators.

- Fitness centers: Fitness trainers, group exercise instructors, personal trainers, and wellness coaches.
- Hospitals and clinics: Sports therapists, physical therapists, and rehabilitation specialists.
- Community organizations: Recreation therapists, sports program coordinators, and sports event organizers.
- Corporate wellness programs: Health and wellness coordinators, fitness program managers, and employee wellness coaches.

4. Trends and Future Outlook

- Growing demand for physical education professionals due to increasing awareness of the importance of physical activity for health and well-being.
- Emerging trends such as online fitness coaching, tele-rehabilitation, and virtual reality fitness experiences.
- Opportunities for specialization in areas like adaptive physical education, sports analytics, sports nutrition, and sports psychology.

5. Skills and Qualities for Success

- Strong communication and interpersonal skills.
- Knowledge of exercise science, anatomy, and physiology.
- Passion for health, fitness, and sports.
- Leadership abilities and teamwork skills.
- Adaptability and problem-solving skills.

6. Challenges and Rewards

- Challenges may include job competition, long hours, and physical demands.
- Rewards may include making a positive impact on people's lives, opportunities for personal and professional growth, and the satisfaction of helping others achieve their fitness and wellness goals.

| | |
|------------------|---|
| | <p>7. Conclusion</p> <ul style="list-style-type: none"> ○ Recap of key points regarding career options in physical education. ○ Encouragement for students to explore various career paths and pursue their interests in the field. ○ Emphasis on the importance of physical education professionals in promoting health and wellness in society. <p>8. References</p> <ul style="list-style-type: none"> ○ List of sources cited in the project. <p>NOTE-</p> <p>*Individually Student has to prepare The Research Project.</p> <p>*The Research Project 800-1000words essay/script/Report</p> <p>* This Project-Portfolio is a compilation of the work that the students will submit in the first week of July.</p> <p>*If possible, photograph that Capture the positive experience of the students.</p> <p>*Remember to structure your research project with clear headings, subheadings, and a logical flow of information.</p> <p>*You can include illustrations or diagrams to enhance understanding, especially when explaining different types of postural deformities or corrective exercises.</p> |
| SCULPTURE | <p>PROJECT WORK-</p> <p>PRACTICAL-Construct a small sculpture using clay, paper mache, or any other materials available. Focus on form and texture. Size minimum -5 to 10 inch</p> <p>THEORY- All students make 5-5 multiple choice questions from each chapter. write down in your sculpture notebook.</p> |
| C.ARTS | <p>Q.1 Explain the types of colors with respect to their purity and mixing?</p> |

Q.2 Describe the effects and emotions aroused by any four types of lines.

Q.3 Define texture with examples.

Q.4 Write a short note on the following

(a) Form (b) Tone (c) Space (d) Dominance

Q.6 Write a short note on the following

(a) Upper Paleolithic period

(b) Mesolithic Period

(c) Early History Period

(d) Medieval Period

Q.7 What was the special skill with Chitralkha?

Q.8 Give the translated meaning of terms 'Praman', Lavanya Yojna', Varnika Bhang?

Q.9 Explain the location of the main sites of Indus valley civilization.

Q.10 Describe the historical as well as artistic aspects of the idol 'Dancing girl'

Q.11 Describe the fundamentals of art?

Q.12 How can the colors be classified? Describe any three.

All students write down this question answer in your commercial art notebook

Q.13 Portfolio Project

Prepare a portfolio project on the given topic

1) Illustrate in watercolor on an A2 size sheet

(a) Cultural activity

(b) Still life

(c) Nature Composition

(d) Sports

(e) And prepare 2 Posters each on Apparel advertisement and Food advertisement

Q.12 Human composition

(a) Vegetable market scene

(b) Balloon man

(c) Village life

Guidelines

In each human figure composition sheet minimum three human figure, figure size minimum 6 inches, medium watercolor/poster color.

Note- Students are required to complete their painting finishing work in class after summer break

| | |
|----------------------------|---|
| DATA. SCIENCE | <p>Read and research about BOX and WHISKER PLOTS. And using your findings represent the following data in a Box plot</p> <p>Marks of 10 students out of 15 are as follows – 5, 12, 14, 10, 5, 6, 3, 8, 11, 3</p> |
| MEDICAL DIAGNOSTICS | <p>Students will prepare a Project Report on below activities . They may get the guidance from their respective teacher and in order to boost their skill and knowledge. The Project should be the sole work of student</p> <ol style="list-style-type: none"> 1.The students will find out the presence of Ketone Bodies in Laboratory by Legal test. 2. The students will find out the presence of Ketone Bodies in Laboratory by Rothera’s test. 3. The students will find out the presence of Bile salt in given urine sample with the help of sulphur powder test 4. The students will find out the presence of blood in given urine sample by Benzidine test. 5. The students will prepare charts and present the functions of body fluids. 6. The students will draw the diagram of circulation of CSF in human body. 7. The students will draw the diagram of normal and abnormal sperms. 8. Students will draw and write five characteristic features of : a. Cerebellum b. Tongue c. Esophagus d. Stomach e. Duodenum f. Jejunum g. Ileum h. Large intestine i. Lungs j. Muscles (Skeletal, Cardiac and Smooth) k. Kidneys l. Ureters m. Skin n. Testis o. Ovary p. Uterus 9. The students will draw the structure of Microscope in file and they will describe the functions of different parts of Microscope. 10. The students will draw the diagrams of all histopathological tissues in their file with their characteristic features |
| LEGAL STUDIES | <p>OBJECTIVES OF THE PROJECT:</p> <p>The project work aims to enable students to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> identify a legal problem and provide its remedy <input type="checkbox"/> select relevant legal sources and conduct research <input type="checkbox"/> analyze and distinguish between types of cases <input type="checkbox"/> apply case laws and relevant statutory laws <p>Students can opt for any ONE Project from the three topics given below:</p> |

Topic 1: Students can prepare a research project addressing legal issues related to any topic from the textbook or around them that needs immediate redressal.

Some suggested topics-

- Uniform Civil Code
- Law reforms in India
- Juvenile Justice
- Death Penalty
- Any other course related topic

OR

Topic 2- Students can conduct research and draft a report on any recent legislation/ amendment that brought about a social change, for example: Consumer Protection Act, Information Technology Act, Right to Information Act etc. To conduct research students can examine the conditions that give rise to the need for law reform; the agencies of reform; mechanism of reform; Assess the effectiveness of law reform in achieving just outcomes regarding the issue.

METHODOLOGY FOR TOPICS 1 & 2: The project file should be at least 20 pages.

Steps: -

- Choose a topic
- Gather information from various sources
- Write a statement of purpose of the project
- Support it with research evidence
- Presentation of project should include headings
- List the sources

OR

Topic 3- Understanding the important elements of 'JUDICIAL DECISION'.

OBJECTIVES: The project work aims to enable students to:

- identify a legal problem and provide its remedy
- select relevant legal sources and conduct research
- analyse and distinguish between types of cases
- apply case laws and relevant statutory laws
- understand parts of a judicial decision

METHODOLOGY FOR TOPIC 3:

| | |
|--------------------------------|--|
| | <p>1. The student must select any 5 decided cases where in one case is criminal, one is civil, one is constitutional, one is related to international law, and one is student's choice (PIL if possible).</p> <p>2. The research on the cases must include the following points:</p> <ol style="list-style-type: none"> a. Name of the case b. Parties to the case c. Nature of the case (Civil, Criminal or Constitutional) d. Facts of the case and issues involved e. Decision of the case f. Citation of the case |
| <p>ENTREPRENEURSHIP</p> | <p>PROJECT- PROFILE OF AN ENTREPRENEUR</p> <p>You can select any FAMOUS ENTREPRENEUR (DO NOT COPY FROM EACH OTHER)</p> <p>MARKS ARE SUGGESTED TO BE GIVEN AS:</p> <p>ORIGINALITY- 12 MARKS</p> <p>CONTENT& PRESENTATION 8 MARKS CREATIVITY 5 MARKS</p> <p>WRITTEN TEST 5 MARKS</p> <p>TOTAL 30 MARKS</p> <p>THE PROJECT FILE SHOULD BE IN THE FOLLOWING ORDER: <input type="checkbox"/> Cover page showing project title, student information, school and year. <input type="checkbox"/> Acknowledgements (Acknowledging the institution and people who have helped. <input type="checkbox"/> Index containing the list of contents with page numbers. <input type="checkbox"/> Content of the project along with pictures. <input type="checkbox"/> Bibliography should have the details of reference materials and the websites visited</p> |