



# W.H. Smith Memorial School

**Class 12A**

**Project 2026-27 (Holiday Home work)**

## PROJECT WORK CLASS 12 – SESSION 2026-27

### ENGLISH 1 (ENGLISH LANGUAGE)

#### General Instructions:

1. Use Black waterproof ink.
2. Project should be written in neat handwriting.
3. Take care of paragraphing, punctuation marks, and spellings. Paragraphs should be indented.
4. Use a neatly covered hardboard file.
5. Page sequence should be strictly followed as: Acknowledgment, Index, Project content, Bibliography.

Undertake any one written assignment of 500 words from the list given below:

1. The text of a brochure
2. A product description
3. A process description (e.g., instruction to operate a device, a recipe, a scientific experiment)
4. Description of a sporting event
5. An autobiographical experience
6. Review of a television serial

### ENGLISH 2 (LITERATURE IN ENGLISH)

#### General Instructions:

1. Use Black waterproof ink.
2. Project should be written in neat handwriting.
3. Take care of paragraphing, punctuation marks, and spellings. Paragraphs should be indented.
4. Use a neatly covered hardboard file.
5. Page sequence should be strictly followed as: - Cover page, Acknowledgment, Index, Project content, Bibliography.

Undertake one written assignment of 1000-1500 words, which should be structured as given below:

1. The written assignment must be given a title in the form of a question to explore the drama or the chosen short stories/poems in depth.
2. The written assignment must follow the structure given below:
  - Introduction: - Explanation of the question that has been framed - Reason for choosing the text - Brief explanation of how you intend to interpret the chosen text and literary materials used in the process.
  - Main Body – organized and well-structured treatment of the question using appropriate sub-headings.
  - Conclusion – comprehensive summary of the points made in the main body.

List of suggested assignments for Project Work:

1. Analysis of a theme from any short story/poem in the prescribed texts.
2. Analysis of a character from the drama or any short story/poem in the prescribed texts.
3. Appreciation of literary qualities of the chosen text.
4. Identifying with a character in the chosen text and presenting his/her personal perspective.
5. Imagining an alternate outcome or ending or extension of the chosen text and its impact on the plot/setting/characters/mood and tone.
6. A script for dramatization, based on the short story/poem chosen.
7. Writing a short story based on a poem.
8. Comparing and contrasting two characters/themes from different short stories/poems of the prescribed texts.

### **BIOLOGY PROJECT**

Candidates have to creatively execute one project/assignment on an aspect of Biology. Preference is to be given to investigatory projects. Students may choose any one project of their choice. Students can choose any other project besides the ones indicated in the list given below:

1. Genetic disorders
2. Gene therapy
3. Human Genome Project
4. DNA Fingerprinting
5. Bio-piracy
6. Cancer
7. AIDS / Hepatitis
8. Drug Addiction and community
9. Role of microorganisms in Industry
10. Human Population
11. Mendelian Inheritance
12. Environmental Resistance
13. Traditional and Modern Methods- Study of a few traditional methods of pest deterrence vis-a-vis modern methods of pest control- viability of traditional methods in today's scenario and limitations and dangers of modern methods
14. Role of agrochemicals in increasing food production.

**FORMAT OF THE PROJECT-**

1. Acknowledgement
2. Content
3. Introduction
4. Presentation (graph, Tables, charts, newspaper cuttings, handmade diagrams, photographs, statistical analysis if relevant)
5. Conclusion
6. Bibliography

Project should be handwritten by the candidates. Written page should not exceed 15-20 pages.

## PROJECT WORK – CHEMISTRY

1. Format of the project should be as follows:

Projects should be **hand written** /typed /in pdf format. CLEAR Diagrams if any can be colored. Use practical sheets placed in a cardboard (not plastic) file cover. Your cover page should have the following:

1. Name of the student
  2. Class and Section
  3. Session 2026-27
  4. Topic of the Project
2. Your **HAND WRITTEN** project should contain the following information.
    1. Acknowledgement
    2. Preface
    3. Index
    4. Detailed description of the project topic
    5. Conclusion
    6. Bibliography
  3. **LIST OF TOPICS FOR PROJECT [CHOOSE ANY ONE]**
    1. Amino acids: Peptides, structure and classification, proteins structure and their role in the growth of living beings.
    2. Nucleic Acid: DNA and RNA – their structure. Unique nature. Importance in evolution and their characteristic features.
    3. Carbohydrates and their metabolism, Blood - hemoglobin and respiration.
    4. Vitamins and hormones
    5. Simple idea of chemical evolution.
    6. Natural polymers (any **five**) - structure, characteristics, uses. Synthetic polymers (any **five**) - method of preparation, structure, characteristics and uses.
    7. Types of Dyes - methods of preparation, characteristics and uses.
    8. Chemicals in medicines: antiseptics, antibiotics, antacids, etc. and their uses.
    9. Preparation of soap, nail polish, boot polish, varnish, nail polish remover, shampoo and perfumes.
    10. Chemicals and chemical processes in forensic studies.
    11. Insecticides, pesticides and chemical fertilizers.
    12. Ancient Indian medicines and medicinal plants.
    13. Organic Chemistry in Nutrition, Food Science and Biotechnology.
    14. Effect of Green House Gases.
    15. How Plastics have changed the world, both socially and economically.

## PROJECT FOR (PHYSICS)

Prepare a project on any topic of your choice or you can select topic from the list given in the scope of syllabus (approved by the subject teacher)

## GENERAL INSTRUCTIONS

1. The project has to be printed.
2. The project has to be submitted in file with spiral binding.
3. First page should have the acknowledgement.
4. Second page should have the content.
5. From the third page detail description of the topic.
6. You can attach graph, newspaper cuttings, diagrams, pictures related to the topic in your project.
7. Page limit should be 35-40 pages.
8. Last page should be of bibliography.

## COMPUTER

Do all the exercises of Chapter 1 and 2 in your notebook

## HINDI

हिंदी परियोजना कार्य

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प्रथम - भाषा परियोजना

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निबंध - भारतीय संस्कृति की विशेषताएं (अधिकतम 450 शब्द)

संकेत बिंदु -

प्रस्तावना गरिमाशाली संस्कृति

ज्ञान, त्याग, सत्य, अहिंसा की परिचायक

विश्व कल्याण, वसुधैव कुटुम्बकम् व सर्वधर्म समभाव अनेकता में एकता का भाव

शांतिप्रिय संस्कृति उपसंहार।

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द्वितीय - साहित्य परियोजना

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1. पाठ्यक्रम में संकलित कबीरदास की साखियों को आधार बनाकर, कवि के युगद्रष्टा स्वरूप को स्पष्ट कीजिए। (अधिकतम 250 शब्द)
2. "भिखिन कवितापूर्वक अपने स्वत्व की रक्षा करती हुई अपना जीवन संघर्ष जारी रखती है। \*\*\*" - भिखिन शीर्षक रेखा

## CLASS 12 MATHEMATICS

**Students are required to make two projects from the topics given below:**

1. Using a graph, demonstrate a function which is one-one but not onto.
2. Using a graph demonstrate a function which is invertible.
3. Draw the graph of  $y = \sin^{-1} x$  (or any other inverse trigonometric function), using the graph of  $y = \sin x$  (or any other relevant trigonometric function). Demonstrate the concept of mirror line (about  $y = x$ ) and find its domain and range.
4. Explore the principal value of the function  $\sin^{-1} x$  (or any other inverse trigonometric function) using a unit circle.
5. Find the derivatives of a determinant of the order of  $3 \times 3$  and verify the same by other methods.
6. Verify the consistency of the system of three linear equations of two variables and verify the same graphically. Give its geometrical interpretation.
7. For a dependent system (non-homogeneous) of three linear equations of three variables, identify infinite number of solutions.
8. Explain the concepts of increasing and decreasing functions, using geometrical significance of  $dy/dx$ . Illustrate with proper examples.
9. Using a graph, demonstrate a function which is one-one but not onto.
10. Using a graph demonstrate a function which is invertible.
11. Draw the graph of  $y = \sin^{-1} x$  (or any other inverse trigonometric function), using the graph of  $y = \sin x$  (or any other relevant trigonometric function). Demonstrate the concept of mirror line (about  $y = x$ ) and find its domain and range.
12. Explore the principal value of the function  $\sin^{-1} x$  (or any other inverse trigonometric function) using a unit circle.
13. Find the derivatives of a determinant of the order of  $3 \times 3$  and verify the same by other methods.
14. Verify the consistency of the system of three linear equations of two variables and verify the same graphically. Give its geometrical interpretation.
15. For a dependent system (non-homogeneous) of three linear equations of three variables, identify infinite number of solutions.
16. Explain the concepts of increasing and decreasing functions, using geometrical significance of  $dy/dx$ . Illustrate with proper examples.
17. Explain the geometrical significance of point of inflexion with examples and illustrate it using graphs.
18. Explain and illustrate (with suitable examples) the concept of local maxima and local minima using graph.
19. Explain and illustrate (with suitable examples) the concept of absolute maxima and absolute minima using graph.
20. Explain the conditional probability, the theorem of total probability and the concept of Bayes' theorem with suitable examples.
21. Explain the types of probability distributions and derive mean and variance of binomial probability distribution for a given function.
22. Using any suitable data, find the minimum cost by applying the concept of Transportation problem.
23. Using any suitable data, find the minimum cost and maximum nutritional value by applying the concept of Diet problem.
24. Using any suitable data, find the Optimum cost in the manufacturing problem by formulating a linear programming problem (LPP).
25. Demonstrate application of differential equations to solve a given problem (example, population increase or decrease, bacteria count in a culture, etc.).
26. Using vector algebra, find the area of a parallelogram/triangle. Also, derive the area analytically and verify

the same.

27. Using Vector algebra, prove the formulae of properties of triangles (sine/cosine rule, etc.)

Note: The last submission date for the above projects is 30th June 2026.