BRITISH COUNCIL
International School Award 2019-2022

WOODLAND OVERSEAS SCHOOL

An International School

CBSE PROJECT / PRACTICAL FILE ASSIGNMENT
Grade: 11 Medical / Non-Medical Stream (Session: 2023 - 2024)

ENGLISH:

1. Prepare a project on any current issue i.e. Indians deported from Canada.
2. The project can be made individually or with a group of 3-4 students.
   The project – Portfolio may include the following:
   - Cover page with title of project, school details / details of students
   - Statement of purpose / objectives / goals.
   - Certificate of completion under the guidance of the teacher.
   - Action plan for the completion of the assigned tasks.
   - Materials such as scripts for the theatre / role play / questionnaires for interviews / written assignments, essay / survey reports.
   - The 800 – 1000 word essay / script / /report.
   - Student / group reflection.
   - If possible photographs that capture the learning experiences of the students (s).
   - List of resources / bibliography.

CHEMISTRY:
LAB MANUAL WORK

1. Cutting glass tube and Bending a glass tube.
2. Crystallization of copper sulphate from impure sample of blue vitrol.
3. concentrations of acids, bases and salts using pH paper or universal indicator.
4. Preparation of standard solution of M/10 Oxalic acid.
5. Determination of strength of a given solution of Sodium hydroxide by titrating it against M/20 standard solution of Oxalic acid.
6. Preparation of standard solution of M/10 Sodium carbonate.
7. Determination of strength of a given solution of hydrochloric acid by titrating it against M/20 standard Sodium Carbonate solution.
8. Determination of one anion and one cation in a given salt (Ammonium chloride).

BIOLOGY:
LAB MANUAL WORK

1. Study parts of a compound microscope.
2. Study of osmosis by potato osmometer.
3. Study specimens/ virtual models/ slides of: Bacteria, oscillatoria, liverwort, *Funaria*, fern, pine, *Rhizopus*, Spirogyra, one monocot plant, one dicot plant, amoeba, hydra, Liverfluke, Ascaris, Earthworm, Prawn, Silkworm, Honey bee,, Snail, Starfish, Rohu, Frog, Lizard, Pigeon and Rabbit.
4. Study of plasmolysis in epidermal peels.
5. Study of distribution of stomata in upper and lower surface of leaves.

6. Separation of plant pigments through paper chromatography.
7. Study mitosis in onion root tip cells through permanent slides.
8. Study of rate of transpiration in the upper and lower surface of leaves.
9. Test presence of urea, sugar, bile salt and albumin in urine.
10. Study human skeleton.

PHYSICS:

LAB MANUAL WORK

1. To measure diameter of a small spherical/cylindrical body using Vernier Callipers.
2. To measure diamensions of a given rectangular body of known mass and hences find its density.
3. To measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume.
4. To measure diameter of a given wire and thickness of a given sheet using screw gauge.
5. Using a simple pendulum, plot its L-T2 graph and use it to find the effective length of second's pendulum
6. To find the force constant of a helical spring by plotting a graph between load and extension.

PHYSICAL EDUCATION: Prepare Practical File. It should consist of following practicals:

A. Physical Fitness Test:
   - SAI Khelo India Test.
   - Brockport Physical Fitness Test.

B. Yoga

C. Write any one game of your choice out of the list below games with labelled diagram of field and equipment (Rules, Terminologies and Skills).

a) Football	b) Kabaddi	c) Volleyball	d) Cricket
e) Hockey	f) Kho-Kho	g) Handball	h) Basketball
i) Badminton	j) Swimming	j) Swimming	

MATHEMATICS:

1. To interpret geometrically the meaning of $i = \sqrt{-1}$ and its integral powers.
2. To obtain a quadratic function with the help of linear functions graphically.
3. To verify that the graph of a given inequality, say $5x + 4y - 10 < 0$ of the form $ax + by + x < 0,\ a, b > 0,\ c < 0$ represents only one of the two half planes.
4. To obtain the formula for the sum of squares of first n natural numbers.
5. An alternative approach to obtain the formula for the sum of squares of first n-natural numbers.
6. To demonstrate that the arithmetic mean of two different positive numbers is always greater than the geometric mean.
7. To establish the formula for the sum of the cubes of the first n-natural numbers.
8. To distinguish between a relation and a function.
9. To plot the graphs of $\sin x,\ \sin 2x$ using the same coordinate axis.
10. To find the number of ways in which three cards can be selected from given five cards.

INFORMATICS PRACTICES:
PROGRAMMING IN PYTHON

1. To find average for given marks.
2. To find the sale price of an item with a given cost and discount.
3. To calculate perimeter/circumference and area of shapes such as triangle, rectangle, square and circle.
4. To calculate Simple and Compound interest.
5. To calculate profit-loss for a given Cost and Sell Price.
6. To calculate EMI for Amount, Period and Interest.
7. To calculate tax - GST / Income Tax.
8. To find the largest and smallest numbers in a list.
9. To find the third largest/smallest number in a list.
10. To find the sum of squares of the first 100 natural numbers.
11. To print the first 'n' multiples of a given number.
12. To count the number of vowels in a user entered string.
13. To print the words starting with a particular alphabet in a user entered string.