

English 1

1st Term

1. The Sentence – Definition, Statements, Interrogative Sentences, Imperative Sentences, Exclamatory Sentences.
2. Phrases – Noun Phrases, Adjective Phrases, Adverb Phrases
3. Clauses – Noun Clauses, Adjective Clauses, Adverb Clauses
4. Sentence Patterns – Simple Sentence, Compound Sentence, Complex Sentence
5. Nouns – Kinds of Nouns, Countable and Uncountable Nouns, Collective Nouns + Plural Verb, Noun with a Plural form, Two Nouns joined by *and*
6. Pronouns – Personal Pronouns, Relative Pronouns
7. The Adjective – Order of Adjectives, Kinds of Adjectives, Adjectives used as Nouns
8. Comparison of Adjectives
9. Determiners- few, a few, the few, little, a little, the little, each, every, much, many, etc.
10. Articles – Indefinite Articles, Definite Article, Omission of Articles, Repetition of Articles
11. Agreement of the Verb with the Subject
12. The Adverb- kinds of Adverbs, Position of Adverbs, Use of Adverbs
13. Tenses and Their Use – I – Simple Present, Present Continuous
14. Tenses and Their Use – II – Simple Past, Past Continuous, Present Perfect, Present Perfect Continuous, Past Perfect, Past Perfect Continuous
15. Tenses and Their Use – III – Simple Future, Future Continuous, Future Perfect and Future Perfect Continuous
16. Active and Passive Voice
17. The Infinitive
18. Composition – Narrative, Descriptive, Argumentative, Story Writing, Picture Composition
19. Comprehension
20. Precis
21. Letter writing (Formal & Informal)

2nd Term

22. The Participle
23. The Gerund
24. The Conjunction
25. The Preposition
26. Words followed by Prepositions
27. Phrasal Verbs
28. Modals– Shall, Will, Should, Would, may, Might, Can, Could, Need, Dare, Must, Ought to, Used to
29. Conditional Sentences
30. Combination of simple sentences into simple sentence
31. Combination of simple sentences into one Compound Sentence
32. Combination of Simple Sentences into one Complex Sentence
33. Sequence of Tenses
34. Direct and Indirect Sentences – Assertive Sentences, Imperative Sentences, Exclamatory Sentences, Interrogative Sentences

35. Transformation of Sentences – Sentences with the Adverb ‘too’, Interchange of - Degrees of Comparison, Affirmative and Negative Sentences, Active and Passive, Interrogative and Assertive sentences, Exclamatory and Assertive Sentences, Interchange of Parts of Speech.
36. Punctuation
37. Homophones
38. Composition – Narrative, Descriptive, Argumentative, Story Writing, Picture Composition
39. Comprehension
40. Precis Writing
41. Letter writing (Formal & Informal)

Note : High School English Grammar & Composition to be referred for further material on grammar .

Teaching Points and Learning Objectives

Correct language skills

1. Comparatives and superlatives (special difficulties), more than, than, even, very and positive, much and comparative.
2. The more (of two), the most (of more than two), very much.
3. Confusion of adjectives and adverbs (e.g., hard. hardly, late, lately, etc.).
4. Use of fairly and rather.
5. Adverbial use of no, not, and none.
6. The prop-word one (consistency throughout a sentence).
7. Negative verbs: cannot, has not, does not, is not, must not, not to, in questions.
8. Anticipatory it with noun clauses and adjective clauses, (e.g., it is wrong to steal.)
9. Verbs compounded with adverbs: the position of the object ("take off your hat" or "take your hat off").
10. Reported speech, simple exercises, (emphasis on correctness in the sequence of tenses).
11. Tenses: Correct use of tenses:
 - a. With since (e.g., I have not seen him since last Sunday).
 - b. In adverb clauses relating to the future (e.g., I shall call on you when I come to Delhi).
 - c. In adjective clauses referring to the future (e.g. you are to bring me the papers which you will find on my desk.
 - d. I shall get on the first bus that comes.)
 - e. In conditional sentences (e.g., if it rains the match will be cancelled, etc.)

Oral communication

Speech Training

1. Reading of prepared passages from prose and poetry.
2. Dramatic representation of one-act plays.
3. Re-telling stories and episodes seen on T.V./films/books.
4. Description of persons from literature.
5. Narration of imaginary experiences/stories.
6. Exercises in oral comprehension of passages read by the teacher in class.
7. Exercises in reported speech.
8. Reading of original stories or poetry.
9. News reading.
10. Elocution.
11. Debates

Written communication

1. Re-telling of stories read in books.
2. Description of persons from literature.
3. Narration of imaginary experiences.
4. Narration of imaginary stories.
5. Description of processes with the emphasis on accuracy and conciseness.
6. Dialogues.
7. Dramatizing stories for class acting.
8. Writing of personal and official letters.
9. Reports on projects.
10. Fables and parables may be studied and imitated as a means of training pupils to write briefly and to the point. Further study on the structure of the paragraph and exercises in linking paragraph with paragraph.
11. Written exercises based on the study of passages of prose

English 2

1st Term

1. His First Flight
2. *Mending Wall*
3. The Eyes Have It
4. *Enterprise*
5. Three Questions
6. *Macavity, the Mystery Cat*
7. Catastrophe

Plays:

The Merchant of Venice
Julius Caesar

2nd Term

8. The Diamond Necklace
9. *The Highwayman*
10. Jane is in Trouble
11. *The Battle of Blenheim*
12. The Adventure of the Blue Carbuncle – I
13. The Adventure of the Blue Carbuncle – II
14. *In The Bazaars of Hyderabad*

Plays:

As You Like It
Macbeth

Note : 1. In Eng 2 Syllabus ,words in Italics indicate poems

2. For Plays the text referred is Approach to Shakespeare (with an Introduction by Mrs. Andrew Lang) UBSPD

Teaching Points and Learning Objectives

Literature in English

(i) Class Reading:

Drama of a suitably simple nature. A book of short stories (including Indian Stories) or a volume such as "The Adventure of Travel" in Longmans' Heritage of Literature series.

Poetry : The use is recommended of an anthology which contains poems somewhat more advanced in theme than those suitable for earlier years. Such an anthology should be used selectively with some balance being preserved between narrative, descriptive and lyrical verse. Some Indian verse must be included in the course.

**THE BGES SCHOOL
12B, HEYSHAM ROAD
KOLKATA – 700020**

CLASS 8 SYLLABUS

2015-2016

(ii) Extensive Reading:

It is recommended that pupils should read at least *six* books out of class, under the direction of the teacher, and discuss them informally in class. In addition, one period or more per week should be devoted to extensive reading.

2nd LANGUAGE-HINDI

Pratham Satra

Gunjan Hindi Pathmala-7

1. Manavya Hi Vishva Vijay
2. Saikil Ki Sawari
3. Lallu
4. Rang Jati Ek Ritu
5. Baccho Ke Liye
6. Ratha Chakra
7. Guru Vani
8. Ek Kuta Aur Ek Maina
9. Vidrohi

Prachi Hindi Vyakaran Evam Bhasha-Bodh-8

1. Hindi Lekhan Aur Vartini
2. Shabd Aur Pad
3. Shabd, Rachana-Upsarg Aur Praty
4. Sangya-Ling, Vachan, karak
5. Sarvanam
6. Visheshan
7. Vilom, Vakyansho Ke Liye Ek Shabd, Paryayvachi, Muhavre, Apatith, Patra
Lekhan, Nibandh

Ditiya Satra

Gunjan Hindi Pathmala-8

1. Mera Naya Bachpan
2. Usne Kaha Tha
3. Kapi Kari Hridye Vichar
4. Saza
5. Aakhir Kitni Jameen
6. Jail Ka Jivan
7. Priyatam
8. Panch Parmeshwar
9. Aantariksh Ki Kalpana

Prachi Hindi Vyakaran Evam Bhasha-Bodh-8

1. Kriya, Kal, Vachya
2. Avyaa
3. Vakya
4. Viram Chinah
5. Anekarthi, Samrupi Bhinnartha
6. Taatsam-Tadbhav
7. Lokokti
8. Apatith,

**THE BGES SCHOOL
12B, HEYSHAM ROAD
KOLKATA – 700020**

CLASS 8 SYLLABUS

2015-2016

9. Patra,
10. Nibandh

Udeshya

- *Nibandh-bhashae gyan vridhi,rachanatmakta,tartmyata,kalpanashilta ka vistar,vakya vinyas ka anushilan.
- *Patra-vishaya ki kedriyata ka sathik prastutikaran,vishaya ki sanshkhipta arthat gagar mein sagar bharne ki prakriya ka anushilan.
- *Hindi Vyakaran ka vyavaharik gyan.
- *Kahani ke vachan dwara vachan pratibha ka vikas,aalochatmak tipanni ke dwara kahani ke mool kathya se parichaye,tarkikta tatha rachanatmakta ka vikas,charitra dwara nirnayatmak aalokan ka anushilan.
- *Kahani ke natya rupantar dwara sanvad lekhan ka anushilan.
- *kavita ke bhav vishleshan-lekhan dwara manviya bhavnao ka parishkar tatha unki abhivyakti ka anushilan
- *Pathyakram se bahar ki rachnao ka pathan kar mahine mein ek din us par alochnatmak vichar dwara pathan-vishleshan pravritti ka vikas.

3RD Language - HINDI

1ST TERM

- 1) Veer Napoleon
- 2) Seekho
- 3) Guru Gobind Singh
- 4) Ek Gadha Aur Ek Kutta

GRAMMAR

- 1) Vilom Shabd
- 2) Paryay Vachi
- 3) Anek Shabdo Ke Liye Ek Shabd
- 4) Translation
- 5) Essay Writing
- 6) Letter Writing

2ND TERM

- 1) Daadhi Ka Kamal
- 2) Maa Durga Ka Avir Bhaav
- 3) Raja Ram Mohan Roy
- 4) Kshan Ka Mehatv

GRAMMAR

- 5) Vilom Shabd
- 6) Paryay Vachi
- 7) Anek Shabdo Ke Liye Ek Shabd
- 8) Translation
- 9) Essay Writing
- 10) Letter Writing

2nd Language – Bengali

Grammar

1. Bakya paribartan- Saral Bakya, Jaugik Bakya, Jatil Bakyabda
2. Dhanyatmak Shabda and
3. Homophones(eki shabder bhinna arthe prayog)
4. Upasarga
5. Bachya Paribartan
6. Synonimes(samarthak Shabda)
7. Opposites(Biparit shabda)
8. Padantar
9. Proverbs(Bagdhara)
10. Voice change(Ukti Paribartan)
11. Samoccharita Bhinnarthak Shabda
12. Letter Writing – personal and Official
13. Essay Writing
14. Comprehension

Sahitya Prasanga- Prose

1. Aranyer shobha – Bibhuti bhushan Bandopadhyaya rat Chandra chattopadhyaya
2. Cyclone- Sharat Chandra Chattopadhyaya
3. Beerangana- Mahasweta Debi
4. Cloroform- Amarnath Roy
5. Prachin Banglar Shilpa- Subhash Mukhopadhyaya
6. Phire dekha Netaji- Narayan Sanyal
7. Bidyasagar- Balai Chand Mukhopadhyaya

Sahitya Prasanga- Poetry

1. Bidrohi- kajee Najrul Islam
2. Panrahsha- Rabindra Nath Thakur
3. Banga bhumir prati – Michel Madhusudan Dutta
4. Basti- Shankha Ghosh
5. Fan - Premendra Mitra
6. Ma- Rajani Kanta sen
7. Shatru- Mallika Sengupta
8. Phasaler Dak- Sukanta Bhattacharjya

Galpo Sankalan

1. Naya paratnata- Iswar Chandra Bidyasagar
2. Natunda- Sarat Chandra Chattopadhyaya
3. Praphuller Shiksha- Bankim Chandra Chattopadhyaya
4. Aatar Payash- Raj Shekhar Basu
5. Saada ghora- Ramesh Chandra Sen
6. Pandit masai- Saiyad Mujtaba Ali
7. Aakashar Swad- Ashapura Debi
8. Pilkin's eleven- Bimal Kar

3rd Language – Bengali

1st Semester

Dial B for Bengali Lesson 1,2,3 and 4

Sahaj Bangla Path- Poetry

- Saadh
- Prajapati
- Bombagarer raja

Sahaj Bangla Path- Prose

- Abdul Majhir galpo
- Sinha indur
- Tia pakhir budhi

AAMI Likhi – 1-24

- Paragraph Writing
- Comprehension

2nd Semester

Dial B for Bengali

Revision Lesson 1,2,4,5,7and 8

Sahaj Bangla Path- Poetry

- Amader choto nadi
- Ilshe guri
- Prarthana

Sahaj Bangla Path- Prose

- Narahari Das
- Janoyarer jal pan
- Siter sanchay

AAMI Likhi – 25-48

- Paragraph Writing
- Comprehension

3RD Language - GUJARATI

1ST.TERM.

Lesson -1) Ghar te Ghar.

Lesson -2)Khadha vina kai chhale ?

Lesson -3)Chhokhai kare bhalai .

Lesson- 4)Azadino tahevar .

Lesson -5)Apanu gam .

Lesson -6)Sahu sahu na kam .

2ND.TERM.

Lesson -8)Apana bhaibandh .

Lesson -9)Kalarav na duniya .

Lesson -10)Vad dada .

Lesson- 12)Tapanu ,chhayo,ne chhatri .

Short para on Mari shala ,maro mitra ,vividh tahevaro, , maro desh .

Mathematics

1. Simple interest
2. Expansion and factorization
3. Triangle (Theorems)
4. Percentage
5. Area of triangle
6. Set concepts
7. Linear equations and their problems
8. Area and perimeter of quadrilateral
9. Construction of triangle
10. Rectilinear figure
11. Simultaneous equation
12. Problems on simultaneous equations
13. Profit, loss and discount
14. Theorems on parallelograms
15. Quadratic equations
16. Time and work
17. Graphical solution of simultaneous equations
18. Construction of parallelogram
19. Time and distance
20. Indices
21. Cubes and cuboids
22. Ratio and proportion
23. Area of parallelogram
24. Statistics – frequency distribution, column graph and pie graph

Teaching Points and Learning Objectives

Sets

Idea of a set/ Notation/ Finite/Infinite set.

Well defined collection of distinct objects. Roster method (listing elements) and set builder method. Denoting sets by capital letters and elements by small letters.

Universal set

The empty set/ Equivalent sets/ Equal sets

Cardinal number of a set Candidate will be expected to be familiar with the terms and symbols connected with sets, namely, Sets of numbers : N, W, I or Z, Q and R (General, Operational and Relation)

Subsets

Complement of a set/ Union of sets/ Intersection of sets

Venn diagrams

Venn diagrams as illustrations to bring out relationship in sets and their use in simple logical problems.

Numbers

Natural numbers, whole numbers, integers, ratio, irrational numbers and real numbers.

The real number line

Prime, composite numbers, odd and even numbers. Factors-H.C.F, Multiples-L.C.M

Four fundamental operations. Simplification of expressions involving fractions and decimals (Use of principle of BODMAS). Four fundamental operations involving directed numbers. Ratio, fractions, decimals and Conversion of one to the other. Square root by factors and division method.

Simple Interest

Calculation of interest and Amount only.

Compound Interest by Simple Interest method

Calculation of Interest and Amount only.

Percentage, Profit, Loss, Time and work, Time and Distance, Proportional parts.

Elementary (simple and direct questions) only. Length, area, volume weight and time. Pupils must be fully conversant with the measures of money

Algebra

Fundamental concept

Pupils will be expected to be familiar with algebraic terms such as term, monomial, binomial, trinomial, polynomial degree of a polynomial, coefficient, variable, constant, linear, algebraic fractions.

Fundamental Operation

Addition, subtraction and multiplication. Division of a polynomial by a monomial or a binomial of first degree. Simplification by removal of brackets (Use of principle of BODMAS).

Substitution

Substitution in polynomials (degree 2 or I.) involving at most three unknowns.

Exponents

Positive, integral and zero indices only.

Laws of exponents:

$$x^m \cdot x^n = x^{m+n}; x^m / x^n = x^{m-n}; (m > n \text{ only})$$

$$(x^m)^n = x^{mn}; x^0 = 1$$

Proofs of the laws will not be required.

Formulae Products and Expansions

$$(x \pm a)(x \pm b)$$

Framing of formulae (simple cases). Change of subject to formula.

Factorisation

Taking common; $ax + bx$, $a(x + y) \pm b(x - y)$ Grouping and taking common $ac + bd + ad + bc$. Difference of squares $x^2 - y^2$. Trinomials $ax^2 + bx + c$ (a. b. c)

Linear equations

Solution of :

- (i) simple linear equations and problems leading to them.
- (ii) pairs of simultaneous linear equations in two variables. Simple problems leading them. Candidates will be expected to find a solution set in a given replacement set for the variable.

Graphs

Graphical representation of a linear equation in two variables, Solution of a pair of simultaneous linear equations in two variables graphically.

Mensuration

Area and perimeter of rectangle, trapezium triangle,

Problems on paths inside or outside a rectangle or a circle may be included and circle

Volume

Pupils should be familiar with the abbreviations; cm, m, km; cm^2 , m^2 , cm^3 , m^3 .

Geometry

Note: In the Geometry section of the syllabus, pupils will not be expected to prove theorems. Questions should be set to test simple logical deductions, from geometrical properties.

Fundamental concepts

Candidates will be expected to be familiar with line, plane, space, line segment, polygons as a set of points:

Lines

Parallel, intersecting, perpendicular, bisectors of angles, bisectors of line segments.

Angles

Acute, right, obtuse, straight, reflex, adjacent angles, vertically opposite angles, complementary and supplementary angles. Alternate, corresponding and interior opposite angles (with reference to parallel line).

Properties

1. If two straight lines intersect, the adjacent angles are supplementary and vertically opposite angles are equal.
2. If two angles having a common arm are supplementary the other two arms lie in a straight line.
3. Two parallel lines are cut by a transversal line,
4. The alternate angles are equal.
5. The corresponding angles are equal,
6. The interior angles on the same side of the transversal are supplementary.

Polygons

The angle sum property - interior: $(2n - 4)$ rt. angles, exterior: (4) rt. angles).

**Triangles – Scalene, Isosceles, equilateral
Properties**

1. Congruency: SAS, ASA, SSS, RHS.
2. The angle sum property.
3. If one side of a triangle is produced, the exterior angle Formed is equal Ito the sum of the interior opposite angles.
4. If two sides of a triangle are equal, the angles opposite to them are equal; and the converse.
5. If two sides of a triangle are unequal, the greater side has the greater angle opposite to it; and the converse.
6. Pythagoras' theorem.
7. Quadrilaterals, Parallelogram
8. If a pair of opposite sides of a quadrilateral are equal and parallel, it is a parallelogram,
9. The opposite angles of a parallelogram are equal and adjacent angles are supplementary.
10. The diagonals of a parallelogram bisect each other, and each diagonal bisects the parallelogram.
11. Parallelograms on the same base and between the same parallels are equal in area.
12. Area propositions
13. The area of a triangle is half that of a parallelogram on the same base and between the same parallels.

Rectangle

The diagonals of a rectangle are equal and bisect each other.

Square

The diagonals of a square bisect each other at right angles and are equal.

Rhombus

The diagonals of a rhombus bisect each other at right angles.

Constructions

Using ruler and compasses only.

Angles

An angle equal to a given angle.

Bisection of an angle.

Construction of angles of 60° , 30° , 90° 45°

Lines

Bisector of a line segment. Perpendicular bisector of a segment.

Construction of a perpendicular to a line (i) at a given point in the line and (ii) from an external point.

Triangles

Simple data corresponding to congruency conditions (Questions on constructions of triangles given sum/difference of sides/angles not to be asked). Opposite angles are supplementary.

Part – II

Arithmetic/Algebra

1. Approximation
2. Significant figures, rounding off to a specified unit (e.g. to We nearest mm, nearest g, nearest paisa, etc.) and decimal places.
3. Power and roots
4. Use of tables in computing squares, cubes, square roots and cubes (tables and approximation) roots of natural numbers.
5. Using the division method to find the square roots of a non-perfect square natural number to a specified number of decimal places e.g. find 27 correct to 2 decimal places.
6. H.C.F and L.C.M.
7. Using factors only.

In equations

Simplification of algebraic fractions (canceling the H.C.F./ in Nr. and Dr.) Addition and subtraction of simple algebraic fractions finding the L.C.M. of the denominators.

Quadrant equations

Solution of quadratic equations in one variable, using factors only.

Problems leading to quadratic equations excluded

Relations and Mappings

Review of Class VII work; roster form and equation form functions. Classification of functions not included.

Mensuration

Area and perimeter of a trapezium

Use of the formula for area; direct problems only.

Geometry

Circles

Terms : radius, diameter, circumference, chords, arcs, semicircle, major arc, minor are, sectors, segments, central angle, tangents, in a semicircle = 90

Symmetry, Reflection, Rotation

Figures having symmetry, line symmetry, rotation through 90^o

Statistics

Tabulation of raw-data. Frequency tally. Frequency distribution and column graphs based on frequency distribution and frequency density. Introduction to grouped data – tabulating data and finding mean. Introducing median and mode, revising earlier concepts.

History

1st Term

1. Decline of the Mughal Empire
2. Growth of the British Power in India
3. Revolt of 1857
4. The Impact of British Rule
5. Social Reformers
6. One World-The Global Community
7. United Nations
8. UN Agencies

2nd Term

1. Revolutions and Nationalist Movements-Europe and America
2. Rise of Indian Nationalism
3. Struggle for Freedom(1905-1922)
4. Struggle for Freedom (1923-1939)
5. Achievement of Independence
6. Indian Foreign Policy

Teaching Points and Learning Objectives

History

Decline of the Mughal Empire

Marathas and regional powers – to be covered briefly. The situation which enabled the British to establish an empire in India – Very brief outline of the British conquest of India – the French and the British empires (very briefly). Instead of giving details of wars and dates maps can be used, so that the cumulative growth of British rule can be seen. Few opponents to British rule – Tipu Sultan, the Marathas can be covered briefly.

Impact of British rule in India

Cultural, social and educational. English/western education (less emphasis on details like Wood's Despatch and more on the reasoning behind the policy). Impact in the area of transport and communications – mainly railways. Efforts of social reformers to regenerate Indian society – a representative selection to be taken. Emphasis to be given on the commonalities rather than the details of each.

Contemporary developments in World History

The Age of Revolution

USA – More emphasis to be given to the ideas and events, which caused the revolution.

France – A very brief look at Napoleon's unification of Europe (no details) and his defeat.

Nationalism in Europe

New nations and the impact of nationalism – Definition of nationalism. A very basic look at unification of Italy and Germany. Impact of nationalism to be done through map showing subject peoples in the Empires – how many of them have states of their own now?

The US Civil War

A very basic look at the issues dividing North and South. Role of Abraham Lincoln. A brief look at the main events. Lincoln and Gelytsoburg Address (importance).

Civics

1. World as A global Community
2. International Co-operation.
3. India and her Neighbours.

Teaching Points and Learning Objectives

World as a global community :

1. Concept of interdependence; sharing of goods and services; trade; war; overpopulation and poverty; environmental concerns; globalization and its discontent; disarmament.
2. Each of the above concepts to be very clearly and briefly defined. What is the impact on India of these developments?

International cooperation :

1. The UNO and how it works ; its six major organs to be explained in clearly and briefly;
2. 5 – 6 Agencies : WHO, ILO, FAO, UNICEF, NESCO; one line about the functioning of each, more of general discussion about their campaigns, use of UNICEF cards posters, television and newspapers.
3. India and her neighbours – very brief look at India in South Asia and S E Asia – identification of the SAARC countries and some common programmes like SAVE, SAF Games, etc. (Details about SAARC conferences and their discussions not required).

Geography

1. The Solar System
2. Weather and Climate
3. Study of Climate
4. Temperature
5. Atmospheric Pressure
6. Winds
7. Moisture and Precipitation
8. Asia: The land and its resources
9. Asia: People and their economic activities
10. India: Relief Features and Drainage
11. India: Climate
12. India: Flora and Fauna
13. Wheat cultivation in Punjab
14. Plantation in Kerela
15. Cotton Textile Industry in Mumbai
16. Bangalore: The Silicon Valley of India

Map Marking

1. Asia
2. India

Project

1. Climate
2. Rice Cultivation in West Bengal (case study)

Practical Work

1. How to measure temperature and rainfall?
2. Calculation of mean daily, mean monthly, mean, annual temperature and diurnal range temperature.

Teaching Points and Learning Objectives

Physical Geography

Solar System

Elementary study of the major planets of our solar system - their sizes, distance from the Sun in kms. Characteristic features of each planet. Superior planets and inferior Planets, conditions favourable for life on earth.

Weather and Climate

Difference between weather and climate elements of weather

Temperature

Insolation - radiation - factors affecting temperature of a place viz latitude, altitude, distance from the sea, ocean currents and winds.

Atmospheric Pressure

Factors affecting the distribution of air pressure of a place viz - temperature, altitude and rotation of the Earth. Pressure belts of the World - reasons for high and low pressure.

Winds

Types of winds (only definition and examples). Diagrammatic representations of Planetary Wind System.

Moisture in Atmosphere

Humidity - temperature and humidity, saturated air, dew point, evaporation, condensation, precipitation – relief, convectional and cyclonic rainfall.

Europe

1. Location, political divisions (Balkan States, Baltic States, Lowland countries and Scandinavian Countries).
2. Physical features – North Western highlands, North European Plains. Central Upland, the Alpine System.
3. Climate and vegetation - Tundra, cool summer continental, marine west coast, Steppe, humid subtropical, desert, Mediterranean.
4. Resources and their utilization - soils, animal rearing, forests, water resources, fishing ground, minerals

Asia

1. Physical features- Northern Lowlands, Central Highland, plateau, river basins, islands
2. Climate and Natural Vegetation -- Tundra. Taiga., Steppe, desert, Monsoon
3. Agriculture.
4. Population - awareness and impact of fast population growth.

India

1. Political divisions (through map).
2. Location — five broad physical divisions — Northern mountains. Northern plains, peninsular India. coastal plains, islands.
3. Climate — brief climatic characteristics, three seasons with reference to North East and South West Monsoons.
4. Flora and Puma — tropical rain forest, deciduous vegetation, desert, tidal, alpine.
5. Representation at wild life sanctuaries and biospheres only through map.

Case Study

1. Wheat cultivation in the Punjab
2. Plantation in Kerala.
3. Textile industry in Mumbai.
4. Bangalore as an industrial center/ Silicon Valley of India.

Environmental Education

1. Our Environment and life
2. Human population and environment
3. Agriculture, animal husbandry and environment
4. Utilisation of industrial resources
5. Environmental concerns
6. Factors effecting environment
7. Environmental pollution
8. Disasters and their aftermath
9. Effects of environmental degradation on life forms and habitat
10. Environmental pollution and human health
11. Protecting the environment
12. Modern life style

Teaching Points and Learning Objectives

Balance in Nature

1. Eco-system- interaction between living and nonliving components, structure and function.
2. Energy flow through ecosystem (food chain, food webs); examples of terrestrial and marine food chains.
3. Balance in nature -importance of eco-system.

Impact of Population on Environment

1. Impact of population growth on- eco-system, human settlements, land distribution.
2. Stress due to population growth on -common social facilities and civic services.
3. Increase in consumption, encroachment on monuments.

Harnessing Resources

1. Sources of energy -renewable and non- renewable sources, availability and potential (Indian context).
2. Renewable sources- solar, wind, hydro-energy, ocean (tidal), biomass including bio wastes.
3. Non-renewable sources -coal, petroleum and its products, natural gas.
4. Agriculture and animal husbandry -impact on environment.
5. Utilization of resources for industry -processing and production of goods; need for planning and management; adoption of efficient and environment friendly technologies, industrial waste management practices.
6. Environmental concerns -regional and national.

Environmental Pollution -Cause and Effect

1. Emerging lifestyles in modern societies –over utilisation of resources; increasing consumption of energy (electricity and fuels), materials and facilities; synthetic materials -plastics, detergents, paints and refrigerants; advantages and disadvantages of using them.
2. Factors affecting environment -overexploitation of resources, population growth, industrialisation, use of synthetic materials.
3. Pollution of soil, air and water -sources, impact on physical environment and all forms of life, control and preventive measures (modern and traditional).
4. Noise pollution- sources, impact and preventive measures.
5. Disasters -natural and man-made, major types and their causes, impact on environment and human life.

**THE BGES SCHOOL
12B, HEYSHAM ROAD
KOLKATA – 700020**

CLASS 8 SYLLABUS

2015-2016

6. Impact of environmental degradation on -natural habitats, living forms (endangered and extinct species) and domestic animals.
7. Impact of environmental pollution on human health -indoor and outdoor pollution, pollution related diseases (respiratory, dietary, physiological, genetic, and psychological), occupational hazards and disorders (local examples).
8. Role of individuals, community and government in planning, decision-making, legislation and social action for prevention of pollution and improvement of environment.

Suggested list of Activities

1. The activities suggested below are neither exhaustive nor prescriptive. Teachers may design their own set of activities keeping in view the overall objectives of teaching and learning of Environmental Education at this stage. They will have to make use of local flora and fauna and the available resources and facilities and take cognisance of local environmental problems. Students should be encouraged to initiate action on their own.
2. Collect samples of water from different available sources -potable water, drain water, water stagnant in pits, industrial or factory discharge. Compare the physical characteristics and presence of suspended impurities and living organisms, in the water samples collected.
3. Conduct surveys in nearby localities on number of trees, types of trees, the products and other benefits obtained from them.
4. Observe and find out advantages and disadvantages of growing crops by transplantation and sowing seeds.
5. Make plans for kitchen garden or school garden. Identify suitable plants/trees, undertake plantation and look after them.
6. Prepare a list of local cottage industries and collect information about the types of raw materials, modes of procurement and disposal of waste. Infer the possible impact of these activities on the environment through discussions.
7. Prepare charts depicting different types of food chains or food webs.
8. Visit some of the sites like agricultural fields, factories, fairs, ponds, seacoast, tourist spots, garbage dumps in the locality and record the prevailing environmental conditions.
9. Identify commercial, social and cultural activities that may have a short term or long term impact on environment. Interpret the collected information to create awareness on the impact of the environment. This may be done through discussions.

The possible sources of information could be news items, features, photographs, posters, cartoons appearing in newspapers, magazines, journals or through questionnaires and personal interviews about one or more of the following:

1. Air, water, land and noise pollution;
2. Per capita availability/consumption of water, electricity and land;
3. Sources of potable water, water treatment plants and wastage of water;
4. Quantity of solid, liquid, degradable, non-degradable waste of the city;
5. Methods of disposal of wastes -drainage systems, sewer treatment plant, industrial effluents;
6. Sources of electricity, losses during transmission and utilisation of electricity;
7. Pollution of water bodies including oceans, droughts, floods, cyclones, their impact on environment.
8. Environmental problems caused due to developmental activities such as construction of roads, buildings, large dams.

9. Poaching/hunting of wild animals, illegal trading of animals' skin, paws, horns, ivory, cruelty towards animals.
10. Damage to forests by fires and diseases;
11. Deforestation, extinction of species especially that of wildlife;
12. Impact of overgrazing in a given area/region;
13. Programmes/projects related to protection and conservation of environment, success stories on these efforts.
14. Maintenance of wild life park, sanctuaries and forest reserves;
15. Rules, laws, legislations concerning environmental issues enacted by the government from time to time;
16. Agencies engaged in tackling environmental problems.
17. Communicate your findings through appropriate modes (like posters, charts, collages, cartoons, handouts, writing letters, street plays, rallies, campaigns) to all concerned. Brief individual or group report needs to be prepared for discussions.
18. Participate in campaigns organized by different agencies like NGGs, welfare associations, media, to draw attention of the community and/or local authorities to improve environmental conditions.
19. Participate in co-scholastic activities like observance of world environment day and van mahotsava, eco-clubs, study tours, debates, and quiz competitions.

Teaching Learning Strategies

The teaching-learning strategies for Environmental Education at this stage are to be designed in keeping with the local environmental conditions, both natural and social.. At the same time, it should also aim to help students to develop a global perspective of the environment and problems related to it. The most important parameter, however, to be considered while designing teaching- learning situations would be to provide adequate emphasis on the development of positive attitude as well as love and respect towards environment. This implies that a conscious effort has to be made to provide enough opportunities to the students to participate in a variety of activities.

In order to transact Environmental Education effectively at the upper primary stage an appropriate combination of the following strategies may be adopted:

1. Focusing on mastery of basic skills by frequent drills and repetition of relevant exercises.
2. Creating and arranging situations for observation of natural phenomena.
3. Organizing demonstrations and involving students in discussions.
4. Providing opportunities to identify simple environment related problems and studying them through surveys and projects.
5. Helping students to acquire interpersonal and social skills to accomplish tasks through group learning.
6. Providing opportunities to students to use their imagination and visualize their roles in attempting to find alternate solutions to environmental problems.
7. Organizing group activities and group discussions.
8. Organizing activity based learning. Providing hands-on experience sessions.
9. Providing opportunities to develop skill of communicating their perceptions and ideas in verbal, written and visual forms like pictures, cartoons, maps, charts.
10. Organizing field visits and field interaction followed by discussions.
11. Utilizing various types of resource materials, both in print and non print, as well as expertise available in the community.

Evaluation

1. The assessment of students' achievement in Environmental Education would encompass all the three aspects of development i.e., cognitive, affective and. Both process and product evaluation techniques will need to be used. These will help in ascertaining the growth patterns, identification of strengths and weaknesses as also in utilizing systematic feedback for development of environment friendly habits, positive attitudes and desirable values amongst students.
2. Continuous and comprehensive evaluation using students' profiles and assigning grades would be desirable.
3. Proper records of students' progress would need to be maintained and their profiles so developed, would be utilized for effecting improvement leading to desirable understanding and behavioural actions towards the environment.
4. A multi-pronged approach to evaluation meeting local needs would have to be evolved by the teachers in the context of Environmental Education. Multiple approaches and instruments can be used for monitoring and assessment of desirable behavioural changes in the students. This could be accomplished by carefully observing students individually as well as in groups during participation in field activities, excursions, discussions, project work and co-scholastic activities. In addition, assessing students' progress by peers, parents, teachers and community members could also be undertaken. It would also be desirable to undertake institutional evaluation.

Computer Application

1. QBASIC (School prepared Booklet will be used as Prescribed Book for BASIC)
 - If-Then-Else
 - For-Next
 - Library Functions
 - Counters & Accumulators
 - Conversions
 - Boolean Algebra
 - Logic Gates
 - Nested Loops
 - Arrays (Single and Double dimension)
 - Searching
 - Sorting
 - Filing
2. Networking concepts
 - Advantages
 - Network Components
 - Types of Network
 - Difference between LAN & WAN
 - Network Security
3. MS ACCES
 - Working with Tables
 - Working with Queries
4. Introduction to Adobe Photoshop
 - Features
 - Tools and Options
5. VISUAL BASIC
 - Introduction
 - Programming in VB
 - Loops
6. Understanding HTML
 - History of HTML
 - Using list and creating a Table
7. Sufing Internet
 - WWW
 - Hypertext
 - HTML
 - Multimedia
 - Real-Time Communication
 - Creating a Blog
8. Office 2007 Overview
9. Typing Tutor

Commercial Studies

1st Term

1. Book- Keeping- Basic Idea
2. Principle of Double Entry System
3. Event & Transaction
4. Double Entry System
5. Capital and Revenue

2nd Term

1. Some fundamental concepts
2. Practical Technique of Double Entry
3. Books of Accounts or Financial Books
4. Technique of Double Entry System
5. Trial Balance

Physics

1. Refraction of light
2. Heat
3. Static electricity
4. Magnetism
5. More about solid liquid gases
6. Pressure, up thrust

Teaching Points and Learning Objectives

The Universe

1. The sun some simple facts about it — the names of the nine planets, in correct order.
2. Natural satellites — the moon and its phases —tides.
3. Galaxy,, constellations, comets, meteors, meteorites — in brief.
4. Eclipses of the sun and the moon (revision).
5. Artificial satellites and their uses.
6. Observe and record the phases of the moon.
7. **Project work** — develop research and presentation skills - using encyclopaedia, Internet and other sources.

Caution: Explain to students that watching the sun directly, even **through a darkened glass, can** seriously damage their eyes. To observe a solar eclipse, it can be projected through a pinhole on a wall or a reflected image can be obtained using a mirror.

Light

1. Definitions/Explanation of the terms: refraction, angles of incidence and refraction, refractive index (ratio of the speed of light in to the speed of light in the medium), concave and convex lenses, focus of a lens, real and virtual images.
2. Ray diagrams showing the passage of a ray of light through a parallel sided glass block and a prism.
3. Dispersion of light by a prism.
4. Ray diagram is showing the formation of images by a convex lens for different positions of the object.
5. Brief, simple explanation of long sight and short sight and how they may be corrected.
6. Some optical instruments that use lenses —magnifying glass. simple camera, microscope and telescope — ray diagrams need not be drawn by students.
7. Observing the refraction of a narrow beam light through a parallel-sided glass block

Observing the formation of images by a convex lens for different positions of the object — no measurements required.

Note: A simple convex lens, as obtained in a dissection set, will suffice to set up this improvised experiment; a white card can serve as a screen. Ensure students understand the difference between real and virtual images.

Heat

1. Heat flows from a body at a higher temperature to one at a lower temperature.
2. Factors on which the quantity of heat required to raise the temperature of a body depends — its mass, the rise in temperature, the substance of which it is made,

3. Definition/explanation of the terms: calorie, kilocalorie, specific heat capacity, heat capacity
4. Heat is a form of energy and can also be measured in joules
5. Quantity of heat = mass x specific heat x rise in temperature
6. Heat capacity = mass x specific heat capacity
7. Conductors and insulators (revision) — link with specific heat capacity of material.
8. Change of state occurs at a fixed temperature —melting point or boiling point — and it take up heat. This heat does not cause a rise in temperature and is called latent heat. (Qualitative explanation only.)

Note: It is essential for students to know the correct units for these quantities, in the SI system.
Using given data to solve simple numerical based on the formulae:

More about solids, liquids & gases

1. Kinetic Theory of Matter: The three states of matter — inter- molecular forces (cohesion) and the arrangement of molecules in each state —explaining the general properties of solids, liquids and gases. (Revision)
2. Liquids: surface tension, formation of droplets and a meniscus.
3. What happens when a substance is heated —conduction, convection.
4. Gases and Liquids exert a pressure — what happens to the pressure when a gas is compressed or allowed to expand.
5. Facts about pressure in liquids.
6. Archimedes' Principle and the Law of Flotation.
7. Atmospheric pressure — the mercury barometer, the lift pump.
8. Exploring facts about pressure in liquids at the same and different Levels.
9. Archimedes Principle
10. The Law of Flotation
11. Mercury/Fortin barometer
12. The Lift Pump — model -if possible

More about energy

1. Different forms of energy interconvertibility —energy chains starting from the sun
2. Why coal and oil are called fossil fuels.?
3. Electricity is the most widely used font, of energy — simple ideas about generation in thermal and hydroelectric power stations —location of some major power projects in the country.
4. Renewable and non-renewable sources of energy — non-conventional or alternative sources of energy : solar energy , biomass, nuclear energy, wind energy, geothermal and tidal energy.
5. Air pollution caused by the use of fossil fuels in industry and transport. The use of CNG.
6. Brief explanations of:
 - a. Direct use of solar energy for heating/cooking - use of solar photovoltaic cells — examples of their use in India, especially in their own state/ their own lives.
 - b. Nuclear power stations — location in India —dangers associated with these, need for careful use and strict observance of precautions.
 - c. Biomass — produces both bio-gas (methane) and fertilizer
 - d. Wind energy — wind farms.
 - e. Geothermal and tidal energy

Activities

- a. Personal steps the conservation of all forms of energy and reduction in consumption of fuels and materials of all kinds energy is used in the preparation of all materials.
- b. Identifying local situations where energy is wasted and steps to be taken to reduce the same.
- c. Practising small but significant changes in life style through participation in campaigns at school, home and outside. E.g. "Say NO' to plastic", Save water, Switch off Something (to save electricity). setting up compost pits in gardens, collecting garbage, recycling materials, creating useful products from waste etc.

Static electricity

1. Charged and uncharged bodies — types of charges — charging by friction- simple electrostatic phenomena observed in everyday life.
2. The particles found inside the atom —basic facts about them.
3. The Law of Electrostatic Attraction and Repulsion.
4. An electroscope - charging an electroscope by conduction and induction — determining the nature of its charge (positive/negative).
5. Lightning and lightning conductors.
6. Static electricity, the flow of electrons in a conductor, direction of conventional current.
7. Observing simple electrostatic phenomena
8. Electrostatic attraction and repulsion
9. Making an improvised electroscope —charging it by conduction — testing its charge.

Magnetism & electricity

1. Revision of properties of magnets.
2. Magnetic fields around a bar magnet — lines of force.
3. Brief and simple explanation of the magnetic field of the Earth — magnetic compass.
4. Making electromagnets —
 - Their strength depends on the number of coils and the current in the circuit (increase in the number of cells).
 - Uses of electromagnets.
 - Structure and functioning of an electric bell.
5. Magnetic field associated with a straight current carrying conductor.
 - The Right Hand Rule
 - Clockwise and anti-clockwise current determining the polarity of a solenoid
6. Electromagnetic Induction
 - A brief, simple introduction to the meaning of an alternating current — how it differs from a direct current.
 - Devices that work on this principle dynamo, transformer.
 - Electric motor

Note: Devices are not to be studied in detail.

Chemistry

1. Structure of atom
2. Transformation of substances
3. Metals and non – metals
4. Transformation of substances
5. Structure of atom
6. Carbon
7. Carbon based fuels

Teaching Points and Learning Objectives

Hydrogen

1. An important constituent of several compounds water, acids, organic compounds etc.
2. Laboratory preparation — displacement reactions (revision) — their equations.
3. Properties – oxidation/reduction reaction – reactions of metals with water – uses of hydrogen
4. Laboratory preparation of hydrogen
5. Note: Equation for the reaction and drawing of apparatus by students.

Carbon and its compounds

1. Among the most widely distributed elements on earth — names of some organic and inorganic compounds containing carbon.
2. Allotropy — amorphous forms of carbon - what are crystals? - graphite and diamond- fullerenes (mention only).
3. Other properties of carbon — adsorption affinity for oxygen (reducing agent).
4. Fuels and Combustion — hydrocarbons (methane, biogas, paraffin, kerosene, LPG) ignition temperature - the formation of petroleum and coal (briefly) - products obtained from these fossil fuels- Fire & fire extinguishers (revision) – fire safety at home.
5. The study of the candle flame.

Carbon monoxide - poisonous nature - found in motor car exhausts. Why it also acts as a reducing agent?

1. Absorption of ink by charcoal from a solution.
2. Making *kajal* -- ail amorphous form of carbon
3. Study of a candle flame — observing its parts — drawing a labelled diagram,
4. Interaction with a doctor/fire service personnel regarding avoiding fire accidents. What to do in case of fire and first aid for burns.

Structure of the Atom

1. Ancient views of atomic structure — Indian scientist. Kanada of 6th century B.C. - Dalton's Atomic Theory (in brief).
2. Sub- atomic particles – the proton, neutron and electron — the experiments of J.J.Thomson and Rutherford modern ideas about the arrangement of particles within the atom.
 - a. Atomic mass, mass number and atomic number.
 - b. The arrangement of electrons up to atomic number 19 (potassium)
 - c. Valency — in terms of electrons donated/accepted (revision).
3. Simple ideas of radioactivity — fission—fusion.

4. Harmful effects of radiation – some uses of radioactive materials (in brief) Uses of nuclear energy – generation of power--safety requirements.

Transformation of substances

1. Change of state — physical changes (brief revision).
2. Characteristics of chemical reactions—examples of the following (including equations based on earlier studies): One or more new substance is always formed, change of colour, effervescence. Chemical reactions involve energy changes — it may be obvious or at sub-atomic level, exothermic and endothermic reactions, brief mention of catalysts and their action, including enzymes in the human body which function as catalysts.
3. Types of chemical reactions: (revision and extension of earlier work, to include writing of appropriate equations, observing the patterns in **these reactions** : Combination, decomposition, displacement, double decomposition reactions where a precipitate is formed, neutralization, oxidation/reduction (in terms of loss or gain of oxygen/hydrogen), electrolysis — the formation of ions — ionic compounds exist as ions when in solution- electroplating.
4. Pure substances have fixed boiling points and melting points. Why tap water may not have a boiling point of 100^oC, or a freezing point of 0^oC.
5. Distillation — as a method of separating liquids in a mixture.
6. Balanced chemical equations provide information on the relative proportions of reactants and products.
7. Simple calculations based on chemical equations — e.g. the amount of magnesium oxide when magnesium is burnt; how many grams of lime is formed when limestone is heated
8. As these are relative proportions, the units of mass may be grams, kilograms or tons.

Metals & Non-Metals

1. Names of some common minerals and ores — metals that may be obtained from them.
2. General methods of extracting metals from ores -concentration of the ore, froth flotation, roasting of sulphide ores to convert them to oxides, calcinations (heating without air) to convert carbonates into oxides, smelting heating of oxides ores with carbon to reduce them to the metal, refining by electrolysis.
3. Sample equations based on ferrous or copper sulphide, lead or copper carbonate.
4. Some uses of common metals and non-metals (revision and extension of class VII work). The need to re-cycle and conserve metals.
5. Common alloys and their uses. (revision)
6. Differences in the physical properties of metals and non-metals — luster, corrosion, conduction of heat/electricity, malleability, ductility, sonority, tensile strength, high smelting points (metals).
7. Examples to be drawn, from previous knowledge.
8. Differences in chemical properties :
 - a. Reactions of metals with air, water and acids.
 - b. Activity series – displacement of less active metal by more active metal.
 - c. Noble metals
 - d. Metallic oxides – basic – soluble bases (alkali's)
 - e. Non metallic oxides – acids – form acids
 - f. Acid + base / alkali – salt + water

Biology

1. Life processes: Transport of food and minerals in animals and plants
2. Life processes: growth, development and reproduction
3. Life process: Control and co – ordination
4. Health and hygiene
5. Pollution and conservation
6. Food production and management

Practical

Work should be shown through practical file

1. Cell – onion cell
2. Parts of an angiospermic plant
3. Parts of " Hibiscus flower"
4. Parts of sunflower to show inflorescence
5. Internal characteristics of the root and leaf (cross section)
6. Seed parts
7. Identification of animals
8. Internal structure of a rabbit
9. Food test – protein, carbohydrate and fat
10. Model of heart – to be drawn in the file
11. Blood film – the constituents of blood
12. Experiment on mechanism of inspiration and expiration
13. Model of excretory system and nephron diagram

Teaching Points and Learning Objectives

Life Processes: Transport of food and minerals in animals & plants

1. The circulatory system in human beings.
2. Different types of blood cells blood groups -transfusion of blood. Functions of the blood.
3. Plants — absorption, conduction, rise of cell sap Transpiration
4. Counting of pulse finding an average nothing changes after exercise and rest.
5. Demonstration conduction in plants — (revision)
6. Find out more about blood groups and blood transfusions.

Extension activity: Talking to a pathologist to find out how blood tests can reveal the presence of infection and other diseases like diabetes, HIV.

Life processes: growth, development and reproduction

1. Germinating of seeds – divot and monocot – conditions required for germination.
2. Growth and development in various organisms -metamorphosis e. g. Life cycle of a butterfly
3. Sexual and asexual reproduction in plants and animals
 - a. Self and cross pollination
 - b. Artificial pollination — producing hybrids to improve quality of crops.
 - c. Fission – Amoeba

4. Life cycle of a butterfly — may be observed directly if possible
5. Germination of bean, pea and maize seeds —exploring conditions required for germination (using controls)
6. Growing *flryophyllum Serns/viera*, ginger, grajs, potato, onion, carrot etc through vegetative reproduction.
7. Study of the parts of a flower — revision
8. Physical changes in human beings as a result of growth
9. Adolescence and adulthood — problems related with adolescence.
10. Measuring height and weigh of children in different classes — finding averages —tabulating results and arriving at conclusions (group work)
11. Observing changes in self — through comparing photographs taken at different ages.
12. Reproduction in human beings.
13. Films on human development, puberty

Life processes: control & coordination

1. Sense organs and their functions – eye, ear, nose, skin, tongue.
2. Taking care of the sense organs.
3. Coordination — how this is done- voluntary and reflex actions.
4. Response to internal stimuli — hunger, fat, growth and development etc.
5. The endocrine system — names of endocrine glands - action of some hormones like adrenalin, thyroxine, insulin and pituitary hormone.

Activities

Simple experiments to test the sensitivity of the skin to touch in various parts of the body4r)

Identifying materials by smell /taste/touch e.g. garlic, soap, *tulsi* , lemon juice, rubber foam etc. (E)

Caution: Students should be warned never to taste/smell any unknown substance.

Health & hygiene

1. Diseases may be caused by a deficiency of nutrients. Protein/calorie malnutrition -brief revision of deficiency diseases on account of lack of specific vitamins /minerals.
2. Diseases way arise on account of malfunctioning of organs .— e.g. pancreas — lack of insulin may lead to diabetes, malfunctioning kidneys can lead to accumulation of toxic substances in the body.
3. Communicable and non- communicable diseases.
4. Diseases may be caused by infection — viruses, bacteria, protozoans, fungus, insect bite, ingesting infected food and water, pollution allergies.

Examples of each of these.

How diseases spread: Droplet infection (Coughs, colds, influenza, tuberculosis); water-and food - *borne diseases* (diarrhea, typhoid, cholera) vector – borne diseases(malaria, dengue, filaria, plague, yellow fever, gastro-enteritis. polio); contact infection (skin diseases, conjunctivitis, lice, chicken pox), bites (snake poisoning, rabies).

Note: Detailed treatment of diseases is not required.

1. Fever, allergies.
2. Bites, stings and bums

3. First Aid measures for cuts, bites, stings and burns.
4. What to do in ease of fever
5. Prevention of disease – routine stops – immunization.
6. Other bad habits that can lead to ill health: lack of personal hygiene and exercise, addictions to fast food, drugs, tobacco.

Pollution & Conservation

1. Understanding the terms: renewable and nonrenewable resources, biodegradable and non-biodegradable materials, conservation, deforestation, afforestation, corrosion, contamination, pollution
2. Ways in which pollution can affect air, water and soil — steps to be taken to preserve these resources.
Note: Water and air pollution are also mentioned in relevant units in Chemistry, where they may be done briefly. Sound pollution done in class VI may be briefly revised here- as it affects both Man and wildlife.
3. Deforestation and depletion of wildlife —upsetting the balance of nature — how it affects Man — what steps need to be taken to prevent/reduce these
4. Fossil fuels — alternate sources of energy —briefly.
5. Setting personal goals and practising methods of reducing pollution and conserving *energy* and materials.
6. Identifying local problems of VIII pollution and steps to be taken to reduce the same.
7. Practising small but significant changes in life style through participation in campaigns at school, home and outside. E.g. "Say NO' to plastic', Save water, Switch off Something (to save electricity), setting up compost pits in gardens, collecting garbage, recycling materials, creating useful products from *waste etc.*
8. Experiments to find out how long different materials take to get degraded in a compost heap which ones do not get degraded etc.

Food production & management

1. Useful microorganisms, plants and animals —products obtained from them.
2. Sericulture, apiculture, pisciculture, poultry farming, livestock farming — cattle for different uses, sheep — briefly. Protection of animals against diseases.
3. Agriculture: cash and food crops: *rabi* and *kharif* crops, annuals, biennials, perennials. Orchards — examples of the same.
4. Different types of soil — which is most suitable for crops (revision)- acidic and alkaline soils — how to treat them.
5. Agricultural practices:soil preparation, selection and sowing of seeds, irrigation manuring- natural and
6. Artificial fertilizers. weeding, harvesting and storage of grain. (in brief)
7. Crop protection — pesticides / insecticides – useful and harmful effects.
8. Modern hybrid seeds useful and harmful effects of using such seeds.
9. Crop rotation - organic farming.

Activities

1. Visit, if possible, to agricultural areas to observe the steps taken by farmers.
2. Visits to Sericulture farm. Apiaries, poultry farms
3. Films about these topics.
4. Experiments to observe the water-retention capacity to different types of soil.
5. Testing soils for acidity/alkalinity

**THE BGES SCHOOL
12B, HEYSHAM ROAD
KOLKATA – 700020**

CLASS 8 SYLLABUS

2015-2016

6. Finding about pesticides used by gardeners – extension activity
7. Making compost in the school garden,
8. Vermiculture – setting up a small unit in the school garden.
9. Interactions with agricultural scientists and veterinarians.

Socially Useful Productive Work

1. Health and hygiene
2. Food
3. Shelter
4. Clothing
5. Culture and gardening
6. Community work and social service

Teaching Points and Learning Objectives

Activities practices, crafts and services

Health and hygiene

1. Making of tooth powder, chalk sticks, candles, shoe polish, soap, detergents, broom, wastepaper baskets, dust bins, compost manure etc.
2. Preparation of health posters.
3. Keeping of health records.
4. Keep the neighbourhood clean.
5. Working at health centres.
6. Growing medicinal plants.
7. Working for eradication of communicable diseases.
8. Provision of para-medical series.

Food

1. Growing of selected vegetables, ornamental plants.
2. Seed collection, soil testing.
3. Experimentation with different kinds of soil, different kinds of manure.
4. Vegetative propagation by cutting, breeding, grafting.
5. Vegetative reproductivity layering, soil conservation.
6. Making jam, jelly, ketchup, pickles, bakery items. Running canteens for specific periods.
7. Working in Agro – industries and on kitchen gardening, pot culture, crop and seed production, soil conservation and desert control , bee-keeping, poultry, bakery, confectionery, cooking.

Shelter

1. Making articles of use with the help of available material.
2. Polishing doors, windows and furniture.
3. Casual labour tasks in school.
4. Bamboo work, house carft, carpet weaving, etc.
5. Working on potter.
6. Mechanical, electrical and electronic workshop practice.

Clothing

1. Making school bags, school flags, table cloths, pillow cases, table mats.
2. Production of cotton/wool/silk and other fibres. Dress making, knitting hosiery work, embrodiery, leather work.

Culture and Gardening

1. Toy making, making of artificial flowers, items, games material etc.
2. Preparing cards for festivals, designing fancy covers for books, book-binding, fancy candle-making, puppets, musical instruments, and photography.

Community work and social service

1. Helping adults in their work.
2. Keeping the school and its neighbourhood clean.
3. Helping in the care of the sick at home, in school and in the community.
4. Offering first aid when needed.
5. Helping organizers at festivals and during functions.
6. Helping police and public in traffic control.
7. Helping in literacy campaigns.
8. Surveys of the activities of business and industrial set ups in the neighbourhood.

Curriculum Transaction – Aspects of emphasis

Academic Areas

Knowledge of

1. Needs and problems of the community
2. Availability of resources

Concern for the community and environment

Interests, attitudes and values, concern for the community and the environment. Interest in the activity in which participating as demonstrated through:

1. Discipline
2. Dignity of labour
3. Initiative
4. Originality
5. Self reliance

Process of work

1. Planning and execution of work in the desired sequence.
2. Correct selection of tools as also their maintenance and manipulation.
3. Adherence to safety rules

Product of work

1. Quality of the finished product
2. Originality
3. Sale ability of the products

Report

Evaluation Criteria

5. Collection and interpretation of information
6. Self evaluation
7. Social usefulness of the task

8. Precautions taken
9. Results obtained

Format of a teaching learning unit

1. Area under which the content unit falls
2. Class
3. Estimated time for the completion of the task
4. Other inputs/tools etc. as needed
5. Steps of operation
6. Procedures for evaluation

Evaluation of proficiency levels coverage

1. In regard both product and service oriented activities evaluation may have the following criteria.
 - Subject matter
 - Skills
 - Work attitudes
 - Interests
2. Evaluation of all segments of growth.
3. Evaluation of both product and process performance.
4. Evaluation by the teacher who teaches with appropriate checks and balances for containing biases.
5. Evaluation in real life situations and not in hypothetical or contrived settings.

Physical Education

General

1. Exercises - warming up and cooling down
2. Stretching exercises
3. Exercises related to particular sports
4. Table tennis, cricket, soccer tournaments for boys
5. Table tennis and caroms tournament for girls
6. Volley ball and badminton for girls
7. Exercising on trade mills, steppers, cycles, twisters
8. Coaching camps for students - cricket and football
9. Fitness camp for students on every Saturday

Number of Periods

Physical Exercises

- 2 Abdominal Exercises
- 2 Aerobics
- 2 Pilates
- 3 Skipping, Dumbbells, Swiss ball

Games

- 2 Khokho
- 2 Dart Throwing
- 3 Table Tennis
- 2 Carom

Theory

- 1 Basics of athletic
- 1 Structure of 400mt track.
- 2 March Past-commands
- 3 IOC,BCCI,ICC-SPORTS ORG
- 1 KINANTHROPOMETRY

Videos

- 2 THE GREATEST ASHES CD1
- 2 THE GREATEST ASHES CD2
- 2 THE GREATEST ASHES CD3
- 1 IND VS PAK 1999 WC CRK
- 1 HISTORY OF FOOTBALL
DISC 1
- 1 HISTORY OF FOOTBALL
DISC 2