

Government of Madras.

EDUCATIONAL DEPARTMENT.

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1908.

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G.O., No. 364, 13th May 1908.

N. P.

Code of Regulations for European Schools.

Approving the revised curricula and syllabuses for European schools, and for the Primary scholarship and the Middle and High School and Scholarship examinations for Europeans submitted by the Director of Public Instruction, and requesting him to revise the list of high schools for Europeans accordingly.

GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

READ—the following papers :—

I

G.O., No. 494, Educational, dated 23rd July 1906.

ABSTRACT.—Addressing the Government of India on the subject of the curriculum for European schools.

II

Letter—from G. B. H. FELL, Esq., Deputy Secretary to the Government of India, Home Department (Education).

To—the Secretary to the Government of Madras, Educational Department.

Dated—Simla, the 8th June 1907.

No.—421.

I am directed to acknowledge receipt of your letter No. 494, dated the 23rd July 1906, on the subject of the curriculum for European schools.

2. The Government of India think that there has been some misapprehension with regard to the meaning attached to the expression "curriculum." By curriculum the Government of India mean a complete list of subjects taught or learned. A detailed plan of the steps prescribed or followed in one subject is usually termed a syllabus. It appears from your letter and from Dr. Bourne's letter of 19th January 1906 that it has been supposed that by curriculum the Government of India meant a complete set of prescribed syllabuses. This is not however the case: and if this misunderstanding is removed it appears that the Government of Madras are in substantial accord with the Government of India on the subject of curricula. I am, however, to observe that the Government of India do not agree with the opinion expressed by Dr. Bourne that it is advisable to abolish syllabuses altogether. In their view it is the duty of the Education Department to give necessary guidance to school managers in the framing of suitable syllabuses. They do not wish to suggest that the Education Department should prescribe identical syllabuses in all schools. They consider that teachers should be allowed reasonable freedom in this respect, and should be

encouraged to use it. I am to suggest that the department should circulate and publish a syllabus or, better still, alternative syllabuses, for each subject and should also permit schools to submit their own syllabuses for approval. The Government of India will have no objection to the insertion of a clause permitting managers of schools to submit alternative syllabuses of their own for any subject. But the Code should contain a sample syllabus in each subject, which would be framed by the local Government on the advice of the Education Department, and it should be open to the local Government to modify it as often as they think fit.

3. Subject to the following observations, the Government of India see no objection to the adoption of the courses suggested in the schedules which accompany your letter.

In paragraph 6 of your letter the local Government imply that the course of studies for High school classes laid down in the schedule is based upon the suggestions made in paragraph 68 of the Hill Schools Committee's Report; but while the Hill Schools Committee proposed two alternative curricula the Government of Madras suggest one curriculum with certain optional subjects added. They consider that no hard and fast curriculum is desirable, but they have suggested one course only, with nine compulsory subjects; and the only latitude allowed is in the selection of optional subjects. The Government of India request that His Excellency the Governor in Council will consider whether it would not be preferable and more conducive to the freedom which is desired to prescribe two or more alternative curricula, each complete, as far as possible, in itself. I am also to suggest that singing and music, drawing and manual instruction should not be considered as compulsory parts of these curricula in the sense that candidates for scholarships should be compelled to take them as examination subjects, but rather as desirable features of the general scheme of instruction to be taught when the requisite equipment and staff are available.

There seems to be some misconception also regarding the High School Scholarship regulations. Optionals, it is stated, might be selected from the subjects for the High School Scholarship examination which are not included in the compulsory course suggested. If alternative curricula are fixed for the schools the High School Scholarship examination must necessarily be modified so as to be confined to these approved curricula.

I am also to draw your attention to the fact that in the course of studies in the High school classes there is no mention of the subject of science. This is, apparently, a serious omission and it would appear to be necessary to arrange for an alternative curriculum in which science should be included. If therefore the Government of Madras desire to make provision for science teaching, I am to suggest that they should do so by framing a curriculum including science and that this subject should not be added merely as an optional subject. If science is taught it must be taught systematically, and by providing alternative curricula the subject can receive the necessary attention in those schools which have the requisite equipment for efficient instruction.

4. With regard to paragraph 4 of your letter I am to say that the Government of India have no objection to the proposal to make a clear distinction between those middle schools in which the pupils will proceed further and those in which they will not. They are of opinion however that the proposed rules for the curricula are not sufficiently definite on this point.

5. I am also to request that, while the question of the curriculum is under consideration, the opportunity may be taken to revise the lists of High schools and to include in that list no schools which do not provide for the suitable instruction of pupils in a High school curriculum. I am further to suggest that, after giving reasonable time for the necessary notification to managers, no school should be classified as a High school unless its classes in that stage are taught by University graduates or by teachers whose educational qualifications are, in the opinion of the

department, equal to those of graduates. Schools which cannot attain to this level should be classified as below the High school stage. In the opinion of the Government of India, if these conditions are enforced, the High school education of Europeans in this country will be more definite and more efficient than it is at present.

III

Letter—from the Hon'ble Mr. A. G. BOURNE, D.Sc., F.R.S., Director of Public Instruction, Madras.

To—the Secretary to Government, Educational Department.

Dated—the 14th December 1907.

No.—Cur. 9037.

I have the honour to submit for the approval of Government revised syllabuses

English.
Mathematics.
Physics.
Chemistry.
Elementary Science.
History.

Geography.
Latin.
Singing.
Drawing.
Infants' work.

for European schools in the marginally-noted subjects together with the curricula for the various classes of European schools and for the Primary scholarships and Middle and High School and Scholarship examinations.

2. The examination curricula contained in the Code of Regulations for European schools have been modified with reference to the revised syllabuses and curricula of schools. The number of subjects *prescribed* for each examination is generally the same as the number of compulsory and optional subjects *allowed* according to the Code of Regulations for European schools. It is considered desirable to abandon the practice of *allowing* candidates to take up one or two *additional* optional subjects, as it tends to encourage the cramming up of such subjects just before the examination, with a view to gaining marks rather than education.

3. The syllabuses and curricula now submitted have been drafted by a committee of four* officers appointed by Mr. Logan, and with their recommendations I find myself generally in agreement.

4. In the preparation of the curricula, and to a lesser extent of the syllabuses, the committee has borne in mind the needs of the following classes of schools:—

- (i) High schools preparing for the University and the liberal professions.
- (ii) High schools preparing for subordinate posts in the Railway, Telegraph department and other departments of Government service or for industrial or commercial pursuits or for entrance into non-University schools for professional or technical training.
- (iii) Middle schools preparing for either of these classes of High schools.
- (iv) Middle schools giving an education, *e.g.*, for industrial or commercial career—intended to terminate at this stage.

It has seemed best to regard all Primary schools and sections of one type, Primary sections of "University High schools" being slightly differentiated (*e.g.* in choice of second language) from those of other schools.

In the introduction to the syllabuses, these classes of schools have been denoted by letters, which are also applied to the syllabuses and curricula intended for the various classes of schools.

5. The syllabuses are intended not only to serve as samples to teachers competent to frame syllabuses for themselves, but also to define the scope, aims and methods of instruction in each subject. The examinations must necessarily follow the lines of these syllabuses. The need for having one common examination for all classes of schools involves the setting of a large number of alternative subjects, and the provision of alternative questions in the question papers on some of the subjects, in order to put all classes of schools on an equal footing. It will be necessary for each school, for purposes of the examination, to declare beforehand which curriculum has been adopted.

6. For preparation of syllabuses it has seemed best to adopt the section and not the standard as the unit. But the order in which the parts of each subject should be treated within the section has been shown.

7. A good many alternative subjects not alluded to in the Code of Regulations for European schools are specifically mentioned in the curriculum for non-University High Schools, because it is considered desirable to draw the attention of managers to the possibilities of a "practical" education.

Physiology, Logic and Political Economy allowed by the Code of Regulations for European schools have been excluded intentionally as being less suitable than other subjects for High School classes.

8. It will be noted that a second language is to be an alternative but not a compulsory subject of the High School examination, since it is felt to be undesirable to *insist* on a second language in the case of non-University High schools. Further it is not proposed to make Latin *compulsory* in any school, while it is proposed to exclude it entirely from the curriculum of non-University High schools and to exclude both Latin and Modern European languages from Middle schools providing a complete education. The idea underlying these proposals is that Latin can only be required by those intended for higher education in a University, that both Latin and French are too often taken because it is easier to pass in them than in the vernacular, and that the vernaculars (including Hindustani) require far more attention than they now get in European schools.

9. It has been thought fit to make Physics and Chemistry compulsory in the High school examination, because an elementary knowledge of these subjects is regarded as generally necessary for higher education, whether of a general nature at the University, or of a professional nature in some school or college. In the curriculum of one class of High schools alternative subjects to these are allowed—these alternatives also (with the exception of those intended for girls only) are branches of Natural Science.

10. Drawing and singing have been recommended as compulsory subjects in the curricula of all schools though not in all the School and Scholarship examinations. It is realised that, as pointed out by the Government of India, these subjects should only be taught when adequate provision can be made for them. But it is considered that adequate provision for the by no means elaborate or ambitious courses here suggested can and should be insisted on in all schools.

11. Finally I may remark that in the preparation of the High school syllabuses and curricula an attempt has been made to avoid on the one hand a too rigid adherence to the University Matriculation course and to provide on the other hand courses, which, if successfully accomplished, might be regarded as the equivalents of that course. If the proposals now submitted meet with the approval of Government, I shall forward them to the University of Madras with the request that the High School examination now provided for may be regarded as the equivalent of the Matriculation examination.

CURRICULA, SUBJECTS OF EXAMINATION AND SYLLABUSES FOR EUROPEAN SCHOOLS.

The courses for the Primary school, Middle school and High school Scholarship examinations published below will be substituted for the courses hitherto prescribed for the same examinations in articles 93 to 98 of the Code of Regulations for European schools.

Alternative curricula have been drawn up with reference to the various aims of different classes of schools and each school will doubtless select one of these curricula according to its peculiar needs.

The school authorities will no longer be required to follow the courses of studies prescribed in schedule I of the Code of Regulations for European schools. Syllabuses in most of the subjects likely to be widely taught are published below for the guidance of teachers. While they define to some extent the scope of treatment of the subject they are intended merely as samples and several subjects have not been dealt with. The school authorities are invited to frame syllabuses on similar lines in each subject of their curricula and to submit them to the Inspector for approval.

The following symbols are appended to the curricula and syllabuses to denote the classes of schools to which they relate:—

A—High schools preparing pupils for the University or for the liberal Professions.

AA—High schools preparing pupils for admission to Technical schools and colleges—for entrance on a commercial or industrial career—or for work in a Government department not requiring a University training.

B—Middle schools preparing pupils for A.

BB—Middle schools preparing pupils for AA.

BBB—Middle schools preparing pupils for some profession for which a High school course is not required.

CURRICULUM FOR PRIMARY SCHOOLS AND PRIMARY SECTIONS OF OTHER SCHOOLS.

1. English.
2. Space and Number work.
3. Geography.
4. History.
5. Elementary Science.
6. Second Language (Vernacular or Latin or modern European language in Primary sections of High Schools class A only).
7. Drawing (boys) or Needle-work (girls).
8. Singing.

PRIMARY SCHOLARSHIP EXAMINATION.

The candidates will be tested in—

1. English.
2. Space and Number work.
3. Geography or History or Elementary Science.
4. Second Language (Vernacular or Latin or modern European language).
5. Freehand Drawing (boys) or Needle-work (girls).

(The examination should be oral in so far as it is possible to dispense with written work.)

CURRICULUM FOR MIDDLE SCHOOLS OF CLASS BBB.

1. English.
2. Arithmetic (with symbolic representation).
3. Geometrical Drawing (boys) or Needle-work (girls).
- 4, 5 & 6. Any three of the following:—

Indian History.	}	The course followed in these subjects should be that prescribed for the Elementary grade in the Government Technical examinations.
Geography (with special reference to Commercial Geography).		
Elementary Science.		
Hygiene (girls).		
Book-keeping and Commercial Correspondence.		
Shorthand.		
Typewriting.		
Cookery (girls).		
7. Mensuration (boys) or Domestic Economy (girls).
8. Second Language (Vernacular).
9. Singing.

CURRICULUM FOR MIDDLE SCHOOLS OF CLASS BB.

1. English.
2. Arithmetic (with symbolic representation).
3. Experimental Geometry.
4. English and Indian History.
5. Geography (with special reference to Commercial Geography).
6. Elementary Science.
7. Mensuration.
8. Second Language (Vernacular or Modern European language).
9. Singing.

Freehand Drawing may be continued in Standards V—VII of Middle Schools of the classes BB and BBB.

CURRICULUM FOR MIDDLE SCHOOLS OF CLASS B.

1. English.
2. Arithmetic.
3. Algebra.
4. Experimental Geometry.

5. English and Indian History.
6. Geography.
7. Elementary Science (boys) or Domestic Economy (girls).
8. Second Language (Vernacular or Latin or modern European Language).
9. Freehand Drawing (boys) or Needle-work (girls).
10. Singing.

MIDDLE SCHOOL AND SCHOLARSHIP EXAMINATION.

The candidates will be tested in—

1. English.
2. Mathematics (The question papers will be so framed that there are alternative questions adapted to the various classes of schools).
3. & 4. Any two of the following :—

Geography.	} The question papers will be so framed that there may be alternative questions for various classes of schools.
History.	
Elementary Science.	
Domestic Economy (girls).	
Hygiene.	
Shorthand.	
Typewriting.	
Book-keeping.	
5. Second Language (Latin, Vernacular or Modern European Language).
6. Freehand Drawing or Geometrical Drawing and Mensuration or Needle-work (girls).

CURRICULUM FOR HIGH SCHOOLS OF CLASS A.

1. English.
2. Mathematics.
3. Second Language (Latin, Vernacular or Modern European language).
- 4 & 5. Any two of the following :—

Physics.
Chemistry.
Botany.
Physiography.
Domestic Economy (girls).
Hygiene (girls).
6. History.
7. Geography.
8. Freehand Drawing or Needle-work (girls).
9. Singing.

CURRICULUM FOR HIGH SCHOOLS OF CLASS AA.

1. English.
2. Mathematics.
3. Physics.
4. Chemistry.
5. Geometrical Drawing and Mensuration or Needle-work (girls).
- 6, 7 & 8. Any three of the following :—

History.
Geography.
Second Language (Vernacular or modern European language).
Physiography.
Botany.
Practical Telegraphy and Electric Lighting.
Machine Drawing and Construction.
Hygiene
Domestic Economy
Cookery
Book-keeping and Commercial Correspondence.
Shorthand.
Typewriting.
9. Singing.

The course followed in these subjects should be that prescribed for the Intermediate Grade in the Government Technical Examinations.

High Schools of class AA and Middle Schools of class BBB will be allowed to substitute for any of the alternative subjects included under 6, 7 and 8 and 4, 5 and 6 of their respective curricula any other subject selected from the list of subjects in which Government Technical Examinations are held — provided that the approval of the Inspector is obtained and that the equipment for teaching the subject is satisfactory.

In such subjects the standard required will be that of the Intermediate Grade in Government Technical Examinations for High Schools and of the Elementary Grade for Middle Schools.

HIGH SCHOOL AND SCHOLARSHIP EXAMINATION.

The candidates will be tested in—

1. English.
2. Mathematics (alternative papers in the abbreviated courses of Mathematics and Geometrical Drawing and Mensuration for pupils of schools of class AA).
3. Physics.
4. Chemistry.
- 5, 6 & 7. Any three of the following :—

Second language (Latin, Vernacular or Modern European language).
History.
Geography.
Physiography.
Botany.
Book-keeping.
Shorthand.
Type-writing.
Practical Telegraphy.
Machine Construction.
Domestic Economy.
Hygiene.

SYLLABUSES.

ENGLISH.

PRIMARY AND MIDDLE SCHOOLS AND DEPARTMENTS.

The aim of instruction will be to train the pupils (1) to speak with clear enunciation and correct pronunciation; (2) to express their ideas orally with precision and with grammatical correctness and with sufficient continuity for simple narrative or description; (3) to read aloud with intelligent expression, to grasp the meaning of what they read either aloud or silently—explanations being given where necessary—and to remember the gist of it; (4) to write neatly and legibly and at a reasonable speed; (5) to express their ideas in writing with a greater degree of precision, correctness and continuity than they can be expected to attain in speaking; to observe the usual forms of punctuation, margins, paragraph indentation and the like, and for the beginning and ending and addressing of letters; (6) to obtain such a knowledge of grammar as may be expected to help them in the practice of the above arts; (7) to enlarge systematically the range of their knowledge and ideas and to store their memories with good poetry.

To realise these aims the usual school exercises will be practised.

In the infant classes much attention will be given to speaking. The writing and reading of easy and commonly used words will be practised and in the higher infant class an easy reader may be begun.

In the other primary classes dictation and transcription may be used as writing exercises, but composition should be introduced very early, the writing of sentences framed by the pupils being taken up at latest in the second standard. As progress is made in composition, dictation and transcription should be less used. Grammar should be begun, the standard of knowledge aimed at being not higher than that set by *English Grammar for beginners*—A. S. West—Cambridge University Press. From 75 to 150 lines of verse should be learnt by heart in each school year, the amount increasing with the progress of the pupils.

NOTES.—(1) *Reading*.—All reading books must have the approval of the Inspector. They should be printed in sufficiently large type and suitably illustrated. Pupils should on no account be kept reading over and over again the same book. When one book is finished another should be begun. Among the books there may be "History" and "Geography Readers" but special care must be taken in selection to avoid books under these names which are really only History or Geography text-books. In the reading lessons due attention should be given to the art of intelligent and expressive reading aloud. The subject-matter should be treated with a view to its value as information or as a moral stimulus. The reading lessons should on no account be made mere opportunities for exercises in spelling and grammar. The teaching of the "meanings" found in some old-fashioned reading books should be given up. The test of a pupil's understanding of a word is his ability to use it in oral and written composition, not his knowledge of a definition or synonym.

(2) *Spelling*.—Progressive ability to spell will be expected but it is intended that spelling should be learnt by practice in reading and writing rather than from specific spelling lessons. Word-building may however be used with advantage in the lower classes. Oral spelling should not be practised.

(3) *Writing*.—Copy-writing is purposely omitted from the syllabus. Teachers are not however prohibited from using it as a means to the formation of a good hand. In writing-teaching legibility, speed, accuracy and neatness should all receive attention. Pupils should also be taught to leave suitable margins, write headings properly and to attend to paragraph indentation. The habit of punctuation should be cultivated, the use of the various marks being introduced gradually. The pupils should be familiar, *e.g.*, with the period and comma before they are asked to use the colon and semi-colon. All written exercises should be preserved in books.

(4) *Recitation*.—Very great care is necessary in the selection of passages of poetry for recitation. While they should not be too much above the comprehension of the pupils they should have real literary merit. To secure this teachers will do well to select poetry for recitation only from the works of poets of recognised excellence. Much of the verse in the reading books now in use falls below the standard thus indicated, but it is aimed at in many newer books. Pupils should not learn by heart poetry which they have not been previously helped to understand. Teachers should remember, however, that in the best poetry there is often an element that almost defies explanation and that children may derive much ultimate benefit from learning poetry the meaning of which they only imperfectly grasp. Great pains should be taken with elocution, the poetry being so spoken as to express fully its meaning without impairing its rhythm. Sing-song must of course be avoided.

(5) *Composition*.—This should begin with simple exercises such as the writing down of simple sentences built up orally in class, the writing of a succession of sentences similarly built up, writing out stories read or told by the teacher, writing simple themes on subjects taken from the school work or the pupils out of school observation or experience. The subject-matter and its arrangement will usually be discussed beforehand in the class. Composition exercises framed with a view to the elucidation and practice of grammatical principles will serve to establish a connection between the science and the art of writing. Such exercises will be found in *Lessons in English*—Arnold & Co., Leeds.

(6) *Grammar*.—The study of grammar should be strictly subordinated to the cultivation of the language arts which aims at facility and correctness in writing and speaking. Work in grammar should at first be based on the reading and composition lessons. A text-book should be used, if at all, to give precision and system to ideas already familiar. The setting of rote lessons from a grammar text-book is prohibited.

HIGH SCHOOLS AND SECTIONS.

A.—Study of prescribed texts. Composition and Paraphrase. Conversion, expansion and condensation of sentences.

NOTES.—Paraphrase should be regarded as a test of the pupils' power to understand and give the general meaning of passages of prose or poetry. The grammar and idiom of the language should be studied in connection with the prescribed texts.

A.—In these classes the aim of the work will be to develop a taste for literature and the habit of reading for pleasure and information, and the power of writing lucid and accurate English prose. While intelligent and expressive reading aloud will still be practised the "reading lessons" should have a distinct literary aim, the actual reading being done largely as "home lessons" and silently in the classroom. The lessons should be devoted to elucidation of the subject-matter and to developing critical appreciation of it. Works of literature should be studied rather than reading books. The amount read should be considerable and variety both in content and form should be sought. The following are specimen lists of books for each standard:—

Standard VIII.

Coleridge's <i>Ancient Mariner</i> .	Robinson Crusoe (abridged).
Tennyson's <i>Enoch Arden</i> .	Feats on the Fjord, H. Martineau.

Standard IX.

Shakespeare—A Midsummer Night's Dream.
T. Hughes—Tom Brown's School Days.
Jane Austen—Northanger Abbey.
C. Dickens—A Christmas Carol.

Such a list of books as the above cannot of course be studied in detail, nor is this desirable. Attention is to be given rather to the subject-matter and literary form than to minutiae of linguistic analysis.

Striking passages from the poetical texts studied should be committed to memory amounting to not less than 150 lines in each year.

The formal study of Grammar need not be continued, any grammatical work done being subordinated to the purposes of the reading and composition lessons. The elementary principles of rhetoric, *e.g.*, the choice and order of words in the sentence, the arrangement of clauses and phrases, balance, the structure of the paragraph, coherence in the sentence and paragraph, as exemplified in the books read, should be studied, and the pupils should be encouraged to try to apply them in their compositions.

Composition must be systematically practised, subjects being taken from the school course or from the out of school observations and experiences of the pupils. It must also include the forms used in official and business correspondence.

MATHEMATICS.

PRIMARY COURSE.

Arithmetic and space work.—Counting: addition, subtraction, multiplication and division and partition of integers: Indian and English money: Madras and Indian Imperial weights and measures of length and capacity, their addition, subtraction, reduction, and multiplication and division by simple integers: household accounts and bazaar bills: the meaning of fractions and the fractional notation: simple operations on fractions having for their numerator 12 or 16 or their factors: simple examples of proportion by the unitary method: the calculation of simple interest.

The meaning of plane surface, straight line, angle, right angle, parallel lines: practical measurement of objects: experimental demonstration of simple properties of rectilinear figures: the meaning of area and units of area: calculation of areas of rectangles and triangles.

MIDDLE SCHOOL COURSE—B.

Arithmetic.—The primary course with fuller treatment of the compound rules, simple proportions and simple interest: G.C.M. and L.C.M.: the four fundamental rules applied to vulgar fractions: decimal notation: conversion of vulgar to decimal fractions and *vice versa*: the four fundamental rules applied to decimals: contracted methods of multiplication and division of decimals: approximations: the compound rules bearing on English square and cubic measure and avoirdupois weight: practice: percentages.

Algebra.—The use of symbols to represent numbers: symbolic representation of arithmetical rules: negative numbers: addition, subtraction, multiplication of simple algebraic expressions: simple equations and problems leading thereto: graphic representation of tabulated results and statistics: graphs of very simple algebraic expressions: graphic methods of solving simple equations and problems.

Experimental Geometry.—The main objects to be held in view in teaching this subject are (1) to give the pupil a thorough practical acquaintance with the subject matter of rational geometry which he may take up at a later stage, (2) to train the powers of observation and (3) to cultivate habits of accuracy and neatness.

In the syllabus suggested below for convenience the demonstrations relating to angles, circle, etc., in each year have been grouped together, but this arrangement need not be followed in teaching. In the first year's course, for example, the work in circles may be begun with that in angles, if not before and the two may be carried on concurrently.

Standard V.

Lines.—Revision and co-ordination of ideas of form taught in lower classes. The straight line (edge of straight edge); drawing straight lines through a point in various directions; joining two points; producing lines; explanation of scales on the straight edge; measuring edges of books, copy books, etc.; drawing lines and measuring them; measuring distance between two points; estimation by eye of lengths of lines and distances between points and correction by measurement; laying off lines of given length; division of given line into two, three or more equal parts by scales and dividers.

Angles.—Angle is formed by two intersecting straight lines; drawing angles at a point; comparison as to size of two angles at a point having one leg in common; comparison as to size of two angles (in paper) not at one point and verification by superposition; the straight angle; the right angle (formed by folding the straight edge of a sheet of paper back on itself, the crease forming one leg of the angle; equality of two angles so formed (by mode of construction); equality of all right angles (by cutting out or superposition); testing right angles of set squares; drawing perpendiculars to a given line by means of set square; supplementary and complementary angles and their construction (by producing one leg and by use of set square); measurement of angles; degrees; explanation of protractor and its use; drawing angles and measuring with protractor; measurement of angles of a set square; setting off angles of specified size at a point by protractors; drawing a straight line at a given point in a given straight line making an angle of given size with the latter (notice two solutions); opposite vertical angles, their equality (induction by measurement with protractor and by paper cutting and superposition); total value of angles at a point; the points of the compass and the angles between them.

Circles.—Construction with pin, thread and pencil, cardboard ruler with two holes, and with compasses; explanation of terms circumference, centre and radius; equality of radii (mode of construction and measurement); drawing circles with given centres and given radii; diameter; cutting out circle in paper and folding along diameter; measurement of circumference of circle; bisection of lines and angles and erection of perpendiculars by means of circles, and verification by measurement and folding; bisection of arc of circle.

Standard VI.

Triangles.—Drawing triangles and measuring sides and angles: the sum of the three angles is a straight angle (induction by measurement and paper cutting); induction by paper folding and measurement of the following theorems: (1) if two sides of a triangle are equal the opposite angles are equal and converse, (2) the greater angle is subtended by the greater side and converse (3) the perpendicular is the shortest straight line that can be drawn from a point to a given straight line, (4) two sides of a triangle are greater than the third; construction of triangles from the following data: (1) three sides, (2) two sides and the included angle, (3) two angles and one side, and finding the remaining parts by measurement; drawing angle equal to given angle, one leg and vertex being given (without protractor); construction of a regular hexagon on a given straight line (by six equilateral triangles).

Areas.—Construction of rectangle having sides of given size; construction of square (1) on given straight line, (2) with side of given size; square inch, square foot, square centimetre; number of unit squares in squares and rectangles; areas of squares and rectangles; areas of triangles of given sides and circles of given radii (by counting squares on squared paper).

Circles.—Drawing chords of circles; placing in circle chord of given length; diameter is greatest chord; drawing straight lines of given length to circle (1) from external, (2) from internal points, greatest and least values of lines drawn from a given point to a given circle.

Standard VII.

Parallels.—Drawing parallels by set square and straight edge or by set squares; drawing series of equidistant parallels (by set square and straight edge); drawing transversal to two parallel straight lines; relations between the right angles so formed (1) by dissection and superposition, (2) by measurement, (3) by inference where possible; drawing parallel to given line through given point; parallelograms; drawing parallelograms from various data, e.g., two adjacent sides and included angle, two adjacent sides and altitude, two adjacent sides and diagonal; the opposite sides and angles of a parallelogram are equal and the diagonals bisect one another (induction from dissection and superposition and from measurements); diagonal divides parallelogram into two congruent triangles (dissection and superposition). Division of a line into any number of equal parts (by drawing parallels).

Areas.—Area of triangle half that of rectangle on same base and of same altitude; area of parallelogram; area of rectilinear figure by reduction to equivalent triangle and verification by counting squares; square on hypotenuse of right angled triangles equal to sum of square on sides (by measurement and calculation, and by drawing and counting squares); corresponding inequality theorems for non-right angled triangles.

Triangles.—Concurrence of medians, perpendiculars, bisectors of angles, and of lines bisecting the sides at right angles; division of triangle into four congruent triangles by joining middle points of sides (dissection and superposition).

Circles.—Congruence of circles of equal radii; equal chords cut off equal arcs and equal segments (paper cutting and superposition); angle at centre double angle at circumference standing on the same arc; angles in same segment are equal; angle in semicircle is a right angle and inequality theorems for major and minor segments; angles in conjugate segments are supplementary (all by measurement); describing a circle about a given triangle; inscribing a circle in a given triangle; inscribing in a circle a square, a regular octagon, a regular hexagon, an equilateral triangle; measurement of their sides and angles.

MIDDLE SCHOOL COURSES—BB and BBB.

Arithmetic.—Middle School B Course with the metric system. The use of symbols to represent numbers: symbolic representation of arithmetical rules: negative numbers: graphic representation of tabulated results.

MENSURATION.

I. Triangle—

- (1) Area of any triangle in terms of the sides or the base and altitude.
- (2) Sides and area of a right-angled triangle.
- (3) Area of an equilateral triangle.

II. Quadrilateral—

- (1) Area of a parallelogram in terms of the base and altitude.
- (2) Areas of squares and rectangles.
- (3) Area of a rhombus in terms of the diagonals.
- (4) Area of a trapezium in terms of the parallel sides and the distance between them.
- (5) Area of an irregular quadrilateral in terms of a diagonal and the offsets from the opposite angular points.

III. Circle—

- (1) Length of the circumference and arc of a circle.
- (2) Area of the circle and areas of sectors and segments.
- (3) Area of an annulus or circular ring.

IV. Ellipse—

- (1) Length of the curve in terms of the axes.
- (2) Area of the ellipse and of a segment in terms of the axes, etc.

V. Polygons—

Areas of regular polygons in terms of sides.

VI. Similar figures—

Comparison of areas of similar rectilinear figures.

VII. Irregular figures—

Areas of figures by Simpson's formula.

NOTE.—The subject may be taken up in the third year of the Middle School course. The teaching should be practical as far as possible, and the students should be afforded opportunity of taking actual measurement of the figures.

Experimental Geometry.—For Middle School Course BB only.

As in Middle School Course B.

HIGH SCHOOL COURSE—A.

Arithmetic.—The Middle School course with fuller treatment: the metric system ratio and proportion: compound interest: discount: stocks and shares: profit and loss: exchange: square root.

Algebra.—The Middle School course with fuller treatment: factoring: G.C.M. and L.C.M.: operations on algebraic fractions: equations conditional and identical: equations of the first degree in one, two or three variables with problems leading thereto: equations of the second degree in one variable and the principles involved in their solution: positive integral indices: square root: graphs of simple algebraic functions: the solution of equations by graphic methods.

Geometry.—Experimental—Construction of lines, angles, circles, perpendiculars, parallels, tangents, chords, triangles and regular polygons from given data. Division of lines in given ratios. Bisection of angles, graphical extraction of arithmetical square roots.

Theoretical.

Angles at a point.—If a straight line stand on another straight line, the sum of the two angles so formed is equal to two right angles; and the converse.

If two straight lines intersect, the vertically opposite angles are equal.

Parallel straight lines.—When a straight line cuts two other straight lines, if

- (i) a pair of alternate angles are equal, or
- (ii) a pair of corresponding angles are equal, or
- (iii) a pair of interior angles on the same side of the cutting line are together equal to two right angles,

then the two straight lines are parallel; and the converse.

Straight lines which are parallel to the same straight line are parallel to one another.

Triangles and rectilinear figures.—The sum of the angles of a triangle is equal to two right angles.

If the sides of a convex polygon are produced in order, the sum of the angles so formed is equal to four right angles.

If two triangles have two sides of the one equal to two sides of the other, each to each, and also the angles contained by those sides equal, the triangles are congruent.

If two triangles have two angles of the one equal to two angles of the other, each to each, and also one side of the one equal to the corresponding side of the other, the triangles are congruent.

If two sides of a triangle are equal, the angles opposite to these sides are equal; and the converse.

If two triangles have the three sides of the one equal to the three sides of the other, each to each, the triangles are congruent.

If two right-angled triangles have their hypotenuses equal, and one side of the one equal to one side of the other, the triangles are congruent.

If two sides of a triangle are unequal, the greater side has the greater angle opposite to it; and the converse.

Of all the straight lines that can be drawn to a given straight line from a given point outside it, the perpendicular is the shortest.

The opposite sides and angles of a parallelogram are equal; each diagonal bisects the parallelogram, and the diagonals bisect one another.

If there are three or more parallel straight lines, and the intercepts made by them on any straight line that cuts them are equal, then the intercepts made by them on any other straight line that cuts them are also equal.

Areas.—Parallelograms of the same altitude on the same or equal bases are equal in area.

Triangles of the same altitude on the same or equal bases are equal in area.

Equal triangles on the same or equal bases are of the same altitude.

Illustrations and explanations of the geometrical theorems corresponding to the following algebraical identities:—

$$\begin{aligned} k(a + b + c \dots) &= ka + kb + kc + \dots \\ (a + b)^2 &= a^2 + 2ab + b^2, \\ (a - b)^2 &= a^2 - 2ab + b^2, \\ a^2 - b^2 &= (a + b)(a - b), \\ (a + b)^2 - (a - b)^2 &= 4ab, \\ (a + b)^2 + (a - b)^2 &= 2a^2 + 2b^2. \end{aligned}$$

The square on a side of a triangle is greater than, equal to, or less than the sum of the squares on the other two sides, according as the angle contained by those sides is obtuse, right or acute. The difference in the cases of inequality is twice the rectangle contained by one of the two sides and the projection on it of the other.

Loci.—The locus of a point which is equidistant from two fixed points is the perpendicular bisector of the straight line joining the two fixed points.

The locus of a point which is equidistant from two intersecting straight lines consists of the pair of straight lines which bisect the angles between the two given lines.

The locus of the vertices of all triangles which have the same base and the sum of the squares of their sides equal to a given square is a circle having its centre at the middle point of the base.

The locus of the vertices of all the triangles which have the same base and the difference of the squares of their sides equal to a given square is a straight line perpendicular to the base.

The locus of the vertices of all the triangles which have the same base and their vertical angles equal to a given angle is the arc of a segment of a circle.

The Circle.—A straight line drawn from the centre of a circle to bisect a chord which is not a diameter, is at right angles to the chord; conversely, the perpendicular to a chord from the centre bisects the chord.

There is one circle and one only, which passes through three given points not in a straight line.

In equal circles (or, in the same circle) (i) if two arcs subtend equal angles at the centres, they are equal; (ii) conversely, if two arcs are equal, they subtend equal angles at the centres.

In equal circles (or, in the same circle) (i) if two chords are equal, they cut off equal arcs; (ii) conversely, if two arcs are equal, the chords of the arcs are equal.

Equal chords of a circle are equidistant from the centre; and the converse.

The tangent at any point of a circle and the radius through the point are perpendicular to one another.

If two circles touch, the point of contact lies on the straight line through the centres.

The angle which an arc of a circle subtends at the centre is double that which it subtends at any point on the remaining part of the circumference.

Angles in the same segment of a circle are equal; and if the line joining two points subtends equal angles at two other points on the same side of it, the four points lie on a circle.

The angle in a semi-circle is a right angle; the angle in a segment greater than a semi-circle is less than a right angle; and the angle in a segment less than a semi-circle is greater than a right angle.

The opposite angles of any quadrilateral inscribed in a circle are supplementary; and the converse.

If a straight line touch a circle, and from the point of contact a chord be drawn, the angles which the chord makes with the tangent are equal to the angles in the alternate segments.

If two chords of a circle intersect either inside or outside the circle, the rectangle contained by the parts of the one is equal to the rectangle contained by the parts of the other; and the converse.

Notes.—It will now be the endeavour of the teacher to put on a logical basis the geometrical ideas and truths which the pupils have empirically gained in the previous course of experimental geometry and to lead them to deduce further truths which have been omitted from that course as not being suited for inductive treatment.

In teaching the subject formal definitions should not be given until the necessity for them arises in the progress of the work, and before the definition is given the notions of the pupils concerning the thing defined should be elicited by judicious questioning; the definition should be exhibited as embracing such of these notions as are correct. The consideration of axioms may similarly be deferred till they are needed. An axiom which is really axiomatic is apt to escape the notice of a pupil on account of its very nature, and some teachers prefer to go through a proposition involving a new axiom at first without any mention of it, and then by a careful re-examination of the validity of each step and by judicious questioning to expose the existence of a hiatus which can only be filled by the axiom. The definitions and axioms thus retrieved in the course of the work should be recorded by the pupils and finally collected and numbered.

Experimental geometry should be carried on concurrently with the theoretical course. The pupils should draw accurately the constructions required in each theorem or problem dealt with; and the teacher should see that a fair proportion of them are drawn to dimensions given by him. Throughout the course both in experimental and theoretical geometry 'riders' or 'deductions' should be given with the object of making the pupil think a little for himself instead of appealing mechanically to some known rule or process; they should be extremely simple at first and never should be very difficult.

Geometry should not be dissociated from arithmetic and algebra. Wherever a geometrical fact can be expressed arithmetically or algebraically—and most metrical properties can easily be so expressed—the pupils should be led to find out the formulae expressing them. Many of the problems (using the word in Euclid's sense) of elementary geometry can be transformed into algebraical problems requiring the solution of a simple or a quadratic equation, and this view should be presented to the pupils.

HIGH SCHOOL COURSE—AA.

Arithmetic.—As in AA adding logarithms and their use in computation.

Solid Mensuration.

(1) Surface and volume of a cube or of any rectangular solid in terms of the length of the edges.

(2) Surface and volume of a prism

(3) Surface and volume of a cylinder in terms of the radius of the circular base and the length of the cylinder.

(4) Surface and volume of a pyramid.

(5) Surface and volume of a cone.

(6) Volumes of the frusta of pyramids and cones in terms of the areas of the two ends and the perpendicular distance between them.

(7) Surface and volume of a sphere in terms of the radius.

(8) Surface and volume of the segment of a sphere in terms of its height and the radius of the sphere

Algebra.—The addition, subtraction, multiplication and division of simple algebraic expressions: simple equations and problems leading thereto: graphs of simple algebraic expressions: graphic methods of solving simple algebraic equations and problems: positive integral indices.

Geometry.—The Middle School course with measurement of angles by degrees, minutes and seconds: ratio and proportion treated graphically: explanation of the sine, cosine and tangent of an angle: construction of angles from these ratios and *vice versa*: relations between the sides and angles of a triangle: simple questions in heights and distances.

HISTORY.

Primary Section.

In the primary section stories relating to famous men and noble deeds (taken from English and Indian history) should constitute the course. A greater time should be spent on those who had an influence upon the growth of the British power in India; and in this connection visits should be paid to buildings and places of historical interest in the neighbourhood of the school.

It should be the aim of the teacher to make each personality or event stand out clearly, to make the matter as realistic as possible by the aid of pictorial illustration, by drawing plans and maps, and by excursions to interesting places in the vicinity of the school.

Some attempt should be made to show the sequence of events. Text-books should not be used.

Middle Section.

An outline knowledge of English history as contained in Gardiner's "Outlines of English History." The periods might be as follows:—

(1) From the earliest times to the accession of James I, defined in point of detail by the treatment of this period in Gardiner's "Outlines", pages 1—194.

(2) From the accession of James I to the accession of George III, similarly defined in extent by the treatment of this period in Gardiner's "Outlines", pages 195—326.

(3) (a) Revision from the accession of Henry VII.

(b) From the accession of George III to the present time, as defined in extent by the treatment of this period in Gardiner's "Outlines", to the end.

An outline knowledge of Indian history as contained in Marsden's "Indian History for Middle Schools." The periods might be as follows:—

(1) The British period.

(2) The Moghul period.

(3) The pre-Moghul period (in very brief outline).

(4) The British period (in more detail).

In the Middle School Course BBB English History will not be taught and consequently the whole of Indian History will be included in the curriculum. The principles laid down for guidance in the case of High Schools apply here. It will be possible to enter into greater detail, especially in the period commencing with the foundation of the British power in India, but the teacher must guard against unimportant detail. He should select such events as he thinks are of importance and endeavour to make them as realistic and intelligible as he can.

For the intelligent teaching of the British Period in India it is necessary, as occasion demands, to give a brief outline of the relations existing between England and foreign powers.

An elementary knowledge of the local and imperial administration of India should be insisted on, the lines followed being those contained in Lee Warner's *Citizen of India*. The use of this as a text-book by pupils is not desirable in this stage.

High Section.

A more detailed study of the outlines of English and Indian History. The syllabus given below comprises what may be accomplished during the whole of the High school course:—

I.—Syllabus of the History of Great Britain and Ireland.

Pre-Norman Period.—The early inhabitants of Britain: their modern descendants; what languages they speak; where they live.

The Roman occupation: Agricola. The coming of the English: their original homes: their chief tribes. The conversion of the English. Celtic and Roman Christianity: the supremacy of the latter: reasons and results. The struggle for supremacy between the Heptarchy Kingdoms: the supremacy of Wessex. The coming of the Northmen: who they were: the results of their coming. The struggle between Wessex and the Northmen: the victory of Wessex. Alfred: Athelstan: Edgar: Dunstan. The Danish conquest: reasons: Canute. The English line restored.

The Norman and early Plantagenet Period.—The Norman conquest: its causes and effects. Character of the Norman kings and of their rule. Feudalism. The opposition of the baronage to the royal power. The anarchy of Stephen's reign. Order restored by Henry II. His aims: his quarrel with Becket: reasons and results. The reforms of Henry II. His foreign possessions: extent. His quarrel with the barons. The loss of Normandy: its effects. The baronage a national party; struggle with John: the Great Charter. The weak rule of Henry III: subservience to the Papacy: foreign favourites. The barons war: Simon-de-Montfort, his character and aims. Revival of the monarchy under Edward I: effect of the baronial war seen in his reforms. The beginning of Parliament. The conquest of Wales: the attempted conquest of Scotland. Scotland and France. Edward II's reign. Bannockburn: temporary supremacy of the baronial party.

The later Plantagenets.—Edward III's reign. The Hundred Years' War: causes: Sluys: Crecy: Poitiers: the treaty of Bretigny, the Black Prince. Increased power of the Parliament. Social and economic changes: the Black Death: its results. Wat Tyler: the peasants rebellion. The attempted autoeracy of Richard II: his overthrow. Literary activity: Langland and Chaucer. The Lancastrian kings: the strength of Parliament at the beginning. Beginnings of dynastic troubles. Early religious reforming movement: Wyclif: the Lollards. Rebellions against Henry IV. Renewal of the Hundred Years' War: reasons: Havre, Agincourt: the treaty of Troyes. The minority of Henry VI: failure in the Hundred Years' War: reasons: close of Hundred Years' War: effects. Renewed social troubles. Outbreak of dynastic Wars of the Roses: causes: chief events. Warwick the King-maker. The Yorkist Dynasty: its character and aims: reasons for its power. The effects of the Hundred Years' War on English political, commercial and social life.

The Tudor Period.—The strength of the Tudor possession of the throne. Their despotic rule. The overthrow of rival claimants. The final suppression of the old baronage. The creation of a new subservient baronage. The need for peace. Henry VII's policy. Henry VIII's character. The career of Wolsey: foreign policy. Ecclesiastical reform: the Reformation in England: its causes. The overthrow of the Papal authority. The phases of the Reformation in England under Henry VIII, Edward VI and Mary and Elizabeth. Comparison with continental reformation: Luther and Calvin. Social results of the Reformation: the rebellions under Edward VI: Elizabeth's poor law. The jealousy of England and Spain: causes: English navigators; the development of English commerce. Elizabeth's foreign policy: the war with Spain: its results. Literary activity of the 16th century: its connexion with the Reformation and the Renaissance. The three religious parties under Elizabeth: the Roman Catholics: the Anglicans; the Puritans: their aims and characteristics: chief sects of Puritans. The Anglicans supreme: policy of uniformity: absence of idea of toleration. The Puritans and royal political supremacy.

The Stuarts.—King and Parliament. The difference between the absolutism of the Tudors and the Stuarts. Suppression of the Roman Catholics: attempted suppression of the Puritans by James I. Growing hostility to royal power; the influence of Puritanism in the party of opposition. The chief points of dispute between the Crown and the Parliament. The failure of Charles I's foreign policy; increased opposition met by further claims of the prerogative. The Petition of Right. Temporary victory of the crown. Renewed opposition over Ship-money and Laud's religious policy. The Bishops' Wars. Summons of Parliament. Early acts of Long Parliament. Outbreak of war; immediate and remote causes. Chief events of the war. The victory of the Parliament: reasons. Breach between the Parliament and the Army. The execution of Charles I. The Commonwealth: rule of Puritan minority. Cromwell in Ireland and Scotland. The Protectorate: Cromwell's character and aims. Reasons of his success and of the failure of his system. The Restoration: why possible. Net gains of the Rebellion. Puritan literature: Milton: Bunyan. The despotic and catholic policy of Charles II and James II: the ministers of Charles II: his French intrigues. The Whigs and Tories: their respective aims. The Exclusion Bill. Temporary triumph of absolutism. Its overthrow at the Revolution: James' rashness compared with Charles' discretion.

The Bill of Rights: the triumph of Parliament. James II in Ireland: William III and Scotland. The beginnings of Party Government under William III and Anne: the unscrupulousness of party politicians: Harley: St. John; Marlborough. The reforms of William III: the Act of Settlement. The wars with France: causes. Marlborough as a general: the chief battles of the war. The treaty of Utrecht: English colonial gains.

The Hanoverian Period.—I. The Whig supremacy:—Reasons for the discredit of the Tories. The 1715 rebellion. The rise and power of Walpole: his policy and methods. The establishment of Party Government with Prime Minister and Cabinet. The reasons for Walpole's long tenure of office. The rise of an opposition. The Family Compact: hostility with Spain and France: reasons. Overthrow of Walpole. Whig supremacy continued with a war policy. The rise of the elder Pitt. The war of the Austrian succession: England's share in it. Colonial rivalry of France and England. The Seven Years' War; its phases: chief events. English gains in 1763. Pitt as a popular minister: his character and aims. The colonial policy of Pitt's successors: the loss of the American colonies. Chief events. Overthrow of the Whig supremacy; reasons for the weakness of the Whig party. Final check to royal control of politics.

II. The Revolutionary Period:—The Tory rule of the younger Pitt. Internal reforms and domestic policy of Pitt: comparison with the policy of Walpole. The outbreak of the French Revolution: Pitt forced into war. The revolutionary and Napoleonic wars: chief events on sea and land. Death of Pitt: his character.

Nelson and Wellington: their careers and characters. Reasons for the success of England at sea. The role played by England in resisting the Napoleonic schemes. The downfall of Napoleon. Religious and literary activities of the period: Wesley: Burke. The industrial development: its nature and causes.

The 19th Century :—(1815—1902): The influence of the French Revolution in England. The great period of reform. Economic and social evils: their causes and remedies: riots: socialist movement: the Chartists: the repeal of the corn-laws: Sir Robert Peel: Cobden and Bright and free trade: factory laws: the spread of education. Political reform: the extension of the franchise: cabinet government: municipal reforms. Great ministers of the period: Russell: Palmerston: Disraeli: Gladstone: Salisbury. Colonial expansion during the period. Wars of the period: mainly frontier and colonial: the Crimean war: the Boer war: causes: results and chief events. The life and influence of Queen Victoria. Great poets and novelists of the century.

II.—Syllabus of Indian History.

The pre-Musalman Period.

1. Physical configuration of India. Distribution of land and water: mountains, rivers and the sea. Position in relation to the rest of the world. Historical consequence of the foregoing.
2. The aboriginal and non-Aryan races.
3. The Indo-Europeans (so-called Aryans). Their immigrations and settlement. Aryan culture. Social and economic conditions. Caste (to about 500 B.C.).
4. Social, economic, religious and political condition in the 6th century B.C. Jainism and Buddhism. The growth of the kingdom of Magadha.
5. The satrapy of Darius (about 500 B.C.). The invasion of Alexander. Its consequences and results.
6. Break down of local independence. The Mauryan empire. Chandragupta. Asoka. Social, religious and economic conditions under the early Mauryans.
7. The disruption of the Mauryan empire. Rivalry between Brahmanism, Buddhism and Jainism; and the Prakrit dialects and Sanskrit. The Sunga, Kanva and Andhra dynasties (about 250 A.D.).
8. Foreign influences, invasions and immigrations. Indo-Greek, Indo-Bactrian, Indo-Parthian and Indo-Scythian dynasties. Revival of Buddhism. Kanishka's empire. Graeco-Roman influence. The Great Satraps of the West. Religious and social conditions (to about 300 A.D.).
9. The Gupta dynasty and empire. Brahmanic revival. Literary activity. Religious and social conditions. Fa Hian.
10. The Huns. Break up of the Gupta empire.
11. The reign of Harshavardhana. Social economic and religious conditions (to about 650 A.D.). Hiouen Tshang. The early Chalukyan empire in the Dakhan. The Pallavas in South India.
12. Minor local dynasties in North India.—Kabul, Punjab, Sindh: Magada, Kanouj, Delhi: Behar and Bengal: Bundelkhand and the Central Provinces: Ajmir, Malwa and Gujarat.
13. The empire of the Dakhan to about 1300 A.D.—The early Chalukyas, the Rashtrakutas, the later Chalukyas and the Yadavas of Devagiri.
14. The South Indian supremacy. The Pallavas. The Chola supremacy. Cheras and Pandyas. The Hoysalas and the Kakatiyas. Economic and social conditions. Dravidian literary and religious activity.

Mediæval India (to about 1761).

1. Early Muhammadan invasions.
2. Mahmud of Ghazni. Muhamad Ghori. The Slave, Khalji and Tuglakh, Shahi dynasties. Social, religious and literary conditions (about 1400).
3. Break up of the empire of Delhi. Local Muhammadan dynasties in Jaunpur, Bengal, Malwa and Gujarat.
4. The Bahmini kingdom of the Dakhan: its break up: final conquest and absorption by the Mughal empire.
5. History of the empire of Vijayanagar to 1565. The successors of Vijayanagar to about 1750.

6. Rajaputana to 1556.
7. The Great Mughals from 1526 to 1707.
8. The Marathas to 1714.
9. Routes of Indo-European trade. The Saracen conquests and the results on Indo-European commerce. The age of discovery. The Portuguese in India. Albuquerque. Causes of the decline of Portuguese power in India (to about 600).
10. The decline of the Mughal empire from 1707 to 1761. The Maratha conquests from 1714 to 1761. Rise of the Sikhs. Panipat.

Modern India (down to the death of the Queen Empress).

1. Importance of sea power in Indian history. Early English attempts to reach India. Rivalry between the Dutch and the English to 1623. The French in India to 1741.
2. The Karnatic wars. Dupleix and Clive. French supremacy in South India. The English in Bengal. The Black-Hole tragedy. Plassey. Final French attempts. Coote and Lally (to 1761).
3. The administration of Bengal from 1758 to 1771.
4. Rise of Haidar Ali. The first Mysore war. The revival of the Maratha confederacy. Madhav Rao, Peshwa (to 1772).
5. *Warren Hastings*.—English politics and Indian affairs from 1748 to 1772. The Regulating Act. Rohills. Benares. The first Maratha and second Mysore wars. Effects of the American war. Suffren on the Indian seas. The First Armed Neutrality. Successful end of Hastings' administration. His work. Pitt's India Bill.
6. *Cornwallis and Sir John Shore*.—The Mysore war. Economic and administrative reforms. The policy of non-intervention.
7. *Wellesley*.—England and revolutionary France. War with Tipu. The Second Armed Neutrality. The battle of Aboukir Bay. The Subsidiary System. Second and third Maratha wars. Minor reforms. Wellesley's work.
8. *Cornwallis and Minto*. Administrative reforms. Conference of Tilsit. Capture of Java.
9. *Marquess Hastings and Lord Amherst*.—Ghurka war. The Pindari war. Last Maratha war. Extinction of the Peshwaship. First Burmese war. The Bhartpur affair. Internal affairs.
10. *Bentinck*.—His reforms.
11. *Auckland and Ellenborough*.—Rise and history of Ranjit Singh. Afghanistan and the Punjab. The first Afghan war; and the "avenging expedition." Conquest of Sindh. Gwalior affairs.
12. *Hardinge and Dalhousie*.—The first and second Sikh wars. Annexation of the Punjab. The second Burmese war. The "doctrine of lapse." Dalhousie's annexations. Railway and telegraph.
13. *Canning*.—The Mutiny. Canning's clemency. The Queen's proclamation. India under the Crown. Financial and military reforms.
14. India under the Crown to the death of the Queen Empress Victoria.

NOTES.—(1) Pupils should be encouraged to read biographies of famous historical personages. The reading of quasi-historical fiction should also be encouraged, and all schools, when drawing up their lists of books to be purchased for the library, should make provision for such literature. The reading of standard poetry on historical subjects is also recommended.

(2) Collections of photographs, pictures in illustration of historical monuments, cities, primitive tribes of India should be made and should be kept in separate portfolios.

(3) Special attention should be paid to historical map-drawing. Historical maps are to be prepared by the teacher and copied by the pupils. In the high section, however, pupils should prepare maps under the guidance of the teacher. English History text-books contain maps and diagrams, and these may be enlarged for class use, and be taken as models for the preparation of maps in connection with the teaching of Indian History.

(4) The connection between History and Geography must be borne in mind, *e.g.*, the manner in which the history of a nation has been affected by its geographical position, etc. Cause and effect should be pointed out from the earliest stages, and in the higher classes pupils should be led to criticise the actions of historical personages.

(5) In the high section reference should be made, if possible, to original documents in excerpts and visits should be paid to old forts and temples and to museums containing relics of historical interest. Excursions might be undertaken to the scenes of battles.

(6) Comparisons should be drawn between the material condition of the people, the state of education, trade and commerce, etc., of different periods.

GEOGRAPHY.

Primary Section.

1. Division of the earth's surface into land and water: illustration of geographical terms and physical features of the locality: the crops, plants, animals, industries and climate of the locality: local means of communication.

2. A general view of the Madras Presidency, physical boundaries, general configuration, chief mountains and rivers, valleys and plateaux, climate of various parts, chief products, agriculture and industries, means of communication, position and importance of the largest towns, languages and races, administration: comparison of neighbourhood of school with some specially selected portion of the Madras Presidency.

3. A general view of India, physical boundaries, general configuration, chief mountains and rivers, valleys and plateaux.

4. Observation of the position of the sun at various times in day and year: points of the compass: simple notions regarding the solar system and shape and movements of the earth: causes of day and night.

5. (a) Plans of the school room, building, surroundings, neighbourhood.

(b) Map-drawing of the Presidency and selected portions of the Presidency.

Middle Section.

1. Revision of work of Primary Section.

2. General view of the British Isles, physical boundaries, general configuration, chief rivers, mountains and valleys.

3. Detailed study of India (the same points should be attended to as in the case of the Madras Presidency).

4. General knowledge of the physical features and configuration of the great land masses of the world. Names and situations of the most important countries.

5. Detailed study of the British Isles (following the plan adopted in a detailed study of India).

6. A general view of Asia, physical boundaries, general configuration, chief mountains and rivers, valleys and plateaux.

7. A general view of Europe, physical boundaries, general configuration, chief mountains and rivers, valleys and plateaux.

8. A general view of the British Empire: geographical position of its various parts with special reference to trade routes.

9. Detailed study of any one of the leading English colonies. Comparison of India, the British Isles and the selected colony.

10. The earth's rotation on its axis, and its revolution round the sun. Latitude, longitude, equator, zones, climate and characteristic products of the various zones. Principles of the barometer and the causes of winds. The monsoons of India, effect of hills, of the sea. Seasons, phases of the moon, tides.

11. Map-drawing of India and selected parts of India.

Do. British Isles.

Do. Asia and Europe and selected parts of these continents.

12. In the Middle School Course BBB stress should be laid on the chief economic products, on manufactures, on the great commercial centres, on the great trade routes, imports and exports.

High Section.

1. Detailed study of Europe, Asia, Africa, America (North, Central, South), Australasia, Polynesia.

The following headings are suggested:—

(1) Position, size and boundaries; (2) Shape and coast line; (3) Surface and relief; (4) Rivers; (5) Lakes; (6) Climate and rainfall; (7) Vegetation; (8) Fauna; (9) Minerals; (10) Industries; (11) Peoples; (12) Population; (13) Communication; (14) Religions; (15) Governments.

2. Detailed study of the leading English colonies. Comparison of India, the British Isles and the leading colonies.

3. Drawing of maps and diagrams should be continued.

NOTES.—(1) From the beginning pupils should be trained (a) to observe, (b) to use their hands. They should be taught to observe actual phenomena, to reason from experiments conducted in class, to draw conclusions from their observation of maps, photographs, models, diagrams. To train their hands they ought to be instructed in making models and maps.

(2) Geographical terms may be taught by allowing pupils to construct for themselves in the school play-ground a model out of the earth representing mountains, rivers, islands, etc. If this is not feasible, a model should be made in the class-room.

(3) After geographical terms have been taught the physical features of the locality should be noted. A plan of the neighbourhood should be made, and all important buildings, roads, rivers, hills, etc., should be inserted. The school-house may be made the centre from which the plan develops. Such a plan might be made in the school play-ground; failing this, resort must be had to a drawing on paper or a model in clay.

(4) In the early stages the teaching should be oral, and pupils should be led to understand the causal relations of geographical facts, e.g., effect of geographical position and climate on the products and trade of a place. As pupils progress a number of such relations will be established, and in course of time they will be able to generalise from the particulars that have been noted.

(5) Comparison is one of the essential parts in the teaching of geography. The locality of the school should be compared with the place or country that is being studied. In the higher sections not only should the locality of the school be compared with the country studied, but also country with country.

(6) Pictures of scenery, inhabitants, animals should be obtained, and for the school library books of travel containing such illustrations might be acquired by degrees. Geographical sheets are published which answer the purpose. Collections of picture post cards may also be found useful.

(7) Frequent use should be made of maps, models and photographs, and experiments should be performed.

(8) Geographical readers may be used with advantage in connection with the geography lesson in all sections.

(9) In the earlier stages map-drawing should consist of the outline of a country, political divisions, position of rivers, mountains etc. Later on pupils should be practised in drawing contour maps. The general configuration of a country and the comparative elevations can be shown by means of colours or by shading. The depth of the sea can be shown in a similar way. Maps illustrating climate, population, rainfall, agricultural products, minerals, trade routes, etc., should be attempted. Too much detail should not be insisted upon.

Pupils should also be practised in making relief maps in clay and in making diagrams to illustrate the lengths of rivers, areas of countries, heights of mountains and passes, etc. The latter will enable them to draw comparisons between the physical features of different countries.

In drawing outline maps the teacher should commence with countries having a simple outline, e.g., India, Africa, and he should not insist upon too great accuracy at first. Shape and proportion are the important points to note. As pupils are introduced to the drawing of special maps (population, climate, etc.) they will have sufficient practice in securing accuracy of outline.

As soon as possible memory drawing should be aimed at.

Map drawing should always form part of the Geography lesson, and the setting of maps to be drawn at home should be discouraged.

PHYSICS AND CHEMISTRY.

HIGH SCHOOLS.

The subjects included in the following syllabus should be taught by the aid of experimental demonstrations—wherever this is possible. The application of physical and chemical facts and principles to experience in ordinary life should receive particular attention.

It is desirable that, as far as the accommodation and equipment of the school will allow, pupils receive practical instruction in the physical and chemical processes included in the syllabus.

(1) *Physics.*

Measurement of length. Meaning of a unit and the measurement of a physical quantity. British and metric units; their multiples and sub-multiples. Derived units of area and volume. Measurement of area and volume.

Measurement of time. Unit of time. Rotation of the earth. Measurement by simple pendulum.

Speed: its measurement involving length and time: calculation of speed in given cases. Elementary ideas regarding acceleration. Illustration of First Law of Motion; definition of force.

Matter: definitions. Measurement of mass. British and metric units: determination of mass by spring balance, and by ordinary balance. Density and specific gravity.

Gravitation. All matter attracted by the earth: illustration of Second Law of Motion: attraction is mutual: illustration of Third Law of Motion. Universality of gravitation. Weight of a body. Distinction between mass and weight.

Properties of matter. Extension, inertia, gravitation, divisibility, porosity, hardness, elasticity, transparency and opacity, cohesion: ductility, malleability, brittleness: plasticity, viscosity. The three states of matter. Changes of state produced by heating and cooling. Permanent and temporary effects of heating different substances: effects on organic substances; tempering of metals.

Simple machines. The lever: its general principle and application to the common balance, and the wheel and axle. The pulley, and the inclined plane; application to the screw.

Centre of gravity: definition. Experimental determination of centre of gravity in simple cases. Condition of equilibrium of a body resting in a given position; stable, unstable and neutral equilibrium. The common balance; how mass is measured by weighing.

Solids. Permanence of shape and volume which are only altered by application of forces.

Liquids: no permanent shape. Surface of liquid at rest horizontal. Pressure defined. In fluids it acts in all directions and is greater at greater depths. Transmission of pressure and its evaluation. Bramah Press. The principle of Archimedes; its experimental proof and applications.

Gases: how distinguished from liquids. Gases have weight. Balloons. Pressure of the atmosphere; the mercury barometer; variation of atmospheric pressure with height proved by mercury barometer; the water barometer. Evaluation of pressure of atmosphere by means of barometer; applications. Air-pump; water-pump. Pressure of a gas; Boyle's Law.

Temperature. Liquids expand by heat; the special case of water. Thermometer used for measuring temperature by observing change of volume of liquid. The mercury thermometer; method of graduating; determination of fixed points; fundamental interval; the Centigrade and Fahrenheit scales. Thermal expansion of solids, liquids and gases.

Distinction between heat and temperature. Heat as a quantity and how it may be measured; the thermal unit; specific heat. Changes of physical state due to heat. Fusion and latent heat of fusion; evaporation and ebullition and latent heat of evaporation. Water vapour present in the atmosphere and determination of its amount. Cooling produced by solution and evaporation; freezing mixtures. The conduction and convection of heat; convection currents in the atmosphere and ocean; the trade winds; land and sea breezes and gulf stream. The circulation of water vapour in the atmosphere, clouds, rain.

Light. Rectilinear transmission. Rays and pencils of light: shadows, etc., produced by different sources, and images of sources produced by pin-holes. The laws of reflection of rays of light; reflection of pencils by plane mirrors and images formed by plane mirrors. Direct reflection of pencils from concave spherical mirrors; experimental proof of law of distances. The laws of refraction of rays of light; refraction of rays through a plate and a prism. Refraction through a convex lens; experimental proof of law of distances; the principal focus of a lens. Image formed by a convex lens; the simple microscope; the photographic camera; the telescope. Analysis of white light by a prism; the method of producing, and order of colours in, the spectrum. The spectrum of sun-light, and of candle light. Recombination of the colours of the spectrum into white light.

Electrification by friction: positive and negative electrifications. Laws of attraction and repulsion. Conductors and non-conductors. Simple voltaic cell; Grove's cell. Electric current. Magnetic effects of currents in straight and coiled wires. Simple galvanometer. Heating effects of currents. Simple facts of electrolysis.

Magnetic substances. Laws of magnetic attraction and repulsion. Magnetic induction. Methods of magnetization.

Graphic representation by use of squared paper of the relation between any two of the physical quantities referred to in the syllabus.

(2) Chemistry.

Examples of mixtures and solutions: (1) sand and sugar, (2) sulphur and iron filings, (3) sand and sal ammoniac, (4) copper sulphate and water. Explanation of the processes of separating the ingredients of these mixtures, filtration, decantation, mechanical or magnetic separation, evaporation, distillation, sublimation.

Chemical compounds. Characteristic differences between compounds and mixtures; illustrations.

Chemical combination illustrated by (1) candle burning in air, (2) sulphur burning in air, (3) magnesium wire burning in air, (4) quicklime combining with water.

Chemical decomposition illustrated by (1) heating mercuric oxide, (2) action of sodium on water, (3) heating potassium chlorate, (4) heating lead nitrate.

Iron in contact with air and water is converted into rust. Rusting is oxidation. Copper, lead, mercury, magnesium, sulphur and phosphorus also oxidize; but their oxidation takes place at different temperatures. Rapid oxidation. Combustion of candle; the products of the combustion are heavier than the candle itself. One of these products is a gas which turns lime water milky and it is the same product which is obtained when charcoal burns in air. Water is another product of the combustion. Similar observations may be made and similar conclusions deduced when oil burns in air. Structure of a candle flame.

The rust or oxide is always heavier than the substance from which it is formed. When a substance (*e.g.*, iron or phosphorus) oxidizes in a confined volume of air about one-fifth of the air ultimately disappears. Remaining air is inactive (*e.g.*, candle will not burn in it). Composition of air: air has two components active (oxygen) and inactive (nitrogen).

Oxygen; its discovery; its mode of preparation and properties. Oxides; products formed when a candle, charcoal, sulphur, phosphorus, sodium or iron burn in oxygen. Burning in oxygen and air compared. Illustrations of acid and alkaline properties.

Hydrogen produced by the action of sodium on water. Products of the decomposition. Same gas is produced when dilute sulphuric or hydrochloric acid acts on zinc, or on iron. Properties of hydrogen; its density, and its combustion with air or oxygen. Water the sole product of this combustion.

Elements and compounds: Two ways of determining the composition of compounds (i) by synthesis, (ii) by analysis; illustrated by the case of water. Synthesis of water (i) by burning hydrogen in air or oxygen, (ii) by passing hydrogen over heated copper oxide. Analysis or decomposition (i) by action of sodium on water (ii) by passing steam over red-hot iron filings, and (iii) by electric current. Composition of water by weight and by volume. Constancy of composition of chemical compounds illustrated by the case of water. Solvent action of water. Crystallization, forms of crystals, water of crystallization. Solubility of gases in water, carbonic acid gas, air, and oxygen: soda water. Spring, river, well, and sea water. Suspended and dissolved impurities. Purification by distillation. Extraction of salt from sea water by evaporation; salt pans.

Carbon; the different forms in which it occurs, their properties and uses. Carbon burnt in air or oxygen produces carbon dioxide. This gas is always formed when candles, oil, etc., burn. Its preparation and properties. Action on lime-water. Exhaled by living animals; action of plants on carbon dioxide. Solution of carbon dioxide in water and properties of the solution. Hard and soft water; permanent and temporary hardness. Methods of softening hard water.

Nitrogen, the inactive constituent of air; preparation and properties. Two of its important compounds, viz., nitric acid and ammonia.

(a) Nitric acid, its preparation from nitre and sulphuric acid. Its properties; power of dissolving copper and mercury and many other metals. Relations between acids bases and salts illustrated by (1) nitric acid and caustic soda, (2) magnesium oxide and sulphuric acid, (3) lime and hydrochloric acid.

(b) Ammonia; its preparation and properties. Solubility in water; power of neutralizing acids and forming salts such as ammonium chloride and nitrate; behaviour of these salts on heating.

Hydrochloric acid and chlorine. Treatment of common salt with sulphuric acid and production of hydrochloric acid gas. Properties of this gas; solubility in water. Production of chlorine from hydrochloric acid and manganese dioxide. Its properties; its power of combining with hydrogen and with metals, such as antimony to form chlorides. Bleaching action of chlorine.

Sulphur; the different forms, their properties. The changes induced: by heat—when burnt in air or oxygen produces sulphur dioxide. Sulphuric acid—its properties and uses.

Phosphorus; the different forms, their properties and uses.

Silicon; occurrence in nature. Chief compound silica. Occurrence of silica in nature free and combined as silicates. Chief forms of silica, quartz, sandstone, flint.

Metals and non-metals, their general properties.

Sodium and potassium; their occurrence and properties. Distinguishing properties of the alkali metals; their more important compounds, common salt, Glauber's salt, washing soda, sodium bicarbonate, caustic soda; potassium carbonate, potassium chlorate, caustic potash, saltpetre, potassium permanganate. Gunpowder.

Calcium. Chief compound calcium carbonate. Its occurrence and various forms. Limestone burnt into lime in lime-kilns. Slaked lime. The use of lime in making mortar and plaster. Calcium sulphate; gypsum and plaster of Paris.

The occurrence, general method of preparation, properties and uses of the following metals:—

Zinc, iron, copper, mercury, lead and silver. The chief oxide and their salts which have been used or produced in experiments and illustrations included in the above syllabus.

ELEMENTARY SCIENCE (OBJECT LESSONS).

Systematic courses of lessons in elementary science of the object lesson type should be given in each class of Primary and Middle schools from the second standard upwards. The courses of such lessons found in "Object lessons in Elementary science," Vincent Murche (Macmillan & Co.), may with advantage be followed. Each of these contains about 33 lessons, *i.e.*, a lesson a week for each school year. They may be taken in the different standards as follows:—

	Standards.	Volume.	Standard.
Primary	II	I	I
	III	I	II
	IV	II	III
Middle	V	II	IV
	VI	III	V
	VII	III	VI

Some courses are for boys and others for girls only. Some of those for *girls only* provide a syllabus for Domestic Economy. It will be understood that this book is not prescribed as a text-book but to define the scope and character of the work which it is expected should be done in the schools. The methods and to some extent the subject matter of the lessons will require adaptation for Indian schools and it is possible that the amount of work may be found in some cases too large and that the omission of some lessons and courses may be necessary.

Notes.—It is necessary to bear in mind that the aim in elementary science teaching is primarily the formation of habits of accurate observation and of inference from facts collected from observation. The accumulation of information—although this is far from being unimportant—is a secondary aim. The lessons should therefore always be based on the observation of objects, pictures, diagrams and experiments. If this is done and mere lecturing is avoided the information which results will easily be remembered. The practice of dictating notes or requiring them to be copied from the black board is to be deprecated. The subject matter of the lessons will however often serve for composition exercises, and these corrected by the teacher and preserved in separate copy books will serve to refresh the pupils' memories.

LATIN.

Latin will be a subject of the curriculum only in High School Course A, in Middle School Course B and in the primary sections of these schools.

In the specimen syllabus given below an attempt has been made to apply the following principles which should be borne in mind by the school authorities who frame syllabuses in this subject.

The general aim of the study of Latin in high schools is to prepare the pupils for a thorough study of Roman life and thought in the University course.

For this purpose it is necessary for pupils at the close of a high school course to be able to read at sight passages of a simple straightforward nature from classical Latin authors. They should have such a knowledge of the structure and idiom of the language as will enable them in the University course not only to read at sight but also to study in detail a particular author and to compare him with other authors.

It is also necessary that they should have acquired and retained some interest in the life, manners and customs of the people whose language they are studying.

The study of the structure and idiom of the language will incidentally be a valuable kind of mental discipline, but in the school stages the formal or linguistic aim should be subordinate to the aim specified above.

The study of the accidents of the language should never be separated from its practical application, nor should exercises in translation be postponed till the declensions and conjugations have been mastered. The simplest rules of syntax should be introduced in the earliest stages, but in these stages everything not essential to the structure of a simple sentence should be carefully excluded; so far as is possible the rules of grammar should be taught inductively from the Latin sentences and later from the continuous passages read in class.

As soon as possible an advance should be made from sentences to continuous passages likely to interest the pupils and to familiarise them with Roman life and manners. The passages should be from standard Latin authors. The acquisition of an extensive vocabulary is most important and should be attended to from the earliest stages. Pupils should not be made to learn long lists of irregular forms or exceptions to rules. Such forms or exceptions should be commented on and noted as they occur in the portions read by pupils. No time should be wasted over irregular forms or constructions that seldom occur in Standard writers or exist only in the minds of Grammarians.

Courses somewhat similar to those suggested below for the Primary and Middle sections will be found in the Illustrated First Latin Reading Book and Grammar, Heatly (Longman & Co.) and First and Second Steps in Latin, Ritchie (Longman & Co.), but these are by no means the only books on these lines and in many cases diverge widely from the syllabus given below.

For the course in the High section books such as the Revised Latin Primer Kennedy (Longman & Co.) will supply the necessary material.

Note.—The pronunciation adopted should be that approved by the Board of Education in England.

Primary Section.

Standards III and IV.

The verb—regular—first two conjugations—active voice—indicative and imperative moods.

The indicative mood of sum.

The declension of nouns (first and second declensions only).

Syntax—First rule of concord. A verb agrees with its subject in number and person.

The subject of a finite verb is in the nominative case.

The nearer object of a transitive verb is in the accusative case.

Subject and complement—copulative verbs.

Order of words in a simple sentence.

Vocabulary—50 nouns in common use.

50 verbs

Most common adverbs of place and time.

Most common prepositions of place and time.

Cardinal numbers up to 20.

Exercises—Translation from Latin into English or *vice versa* of simple sentences and continuous pieces illustrative of portion prescribed above.

Middle Section.

Standard V.

Verbs—third and fourth conjugations—Active voice—indicative and imperative moods.

Nouns—third declension.

Gender of nouns in first three declensions.

Adjectives—of three endings in { us-a-um.
er-a-um.

Pronouns—Personal—Reflexive—Possessive.

Syntax—Second Rule of Concord. An adjective agrees with the substantive it qualifies in Gender, Number and Case.

Order of words in a simple sentence—

Position of the Adjective.

Exercises as for standards III and IV and simple analysis of sentences.

Vocabulary—Cardinal numbers up to 100.

Ordinal numbers up to 100.

Most common Adverbs of Degree and Manner and Cause.

50 common Nouns and Verbs.

Standard VI.

Verbs—The four Conjugations—Passive Voice—Indicative and Imperative Moods.

Deponent verbs.

Adjectives of two and one endings in the Nominative singular.

Comparison of Adjectives and Adverbs.

Pronouns—Demonstrative—Definite—Indefinite—Interrogative.

Vocabulary—All common prepositions other than those learnt in Primary section. Fifty common Nouns—Verbs—Adjectives.

Syntax—Modes of expressing time, place, comparison in sentences.

Third rule of Concord—Apposition.

Exercises as above.

Standard VII.

Nouns fourth and fifth declensions—Genders in the above declensions.

Verbs { Infinitive Active—Passive.
Participles—Active and Passive.

The most common irregular verbs—

Possum	Nolo
Fio	Eo
Volo	Malo

Pronouns—Relative—compound—pronominal adjectives.

Vocabulary—Fifty common nouns, verbs, adjectives.

All the cardinal and ordinal numbers.

Syntax—Adjectival Clauses—

Fourth rule of concord—The relative agrees with antecedent in gender, number and case.

Prolative use of Infinitive—Its use as verbal noun.

Exercises as above.

High Section.

The compound pronouns, correlative pronouns and adverbs. The irregular defective and impersonal verbs—numerals, distributive and adverbial.

Syntax—Conjunctive Mood—

Adverbial clauses.	{	Final ("ut" and "ne")
		Causal
		Temporal
		Consecutive
		Concessive
		Conditional
Substantival clauses, Indirect	{	Statement,
		Question
		Command.

Gerund and Gerundive—

Special uses of various cases, *e.g.*, partitive, genitive, ablative of quality, dative with "sum", etc.

The Ablative Absolute.

Exercises—Translation at sight from Latin into English and *vice versa* of sentences illustrating the constructions mentioned above and of easy continuous passages. ("Unseens" may be taken from Longman's Latin Course "Elementary Unseens" or any other book of a similar nature approved by the Inspector.)

Detailed study—with special reference to subject matter and structure of sentences—of prescribed Text-books in Prose and Poetry.

(Knowledge of rules of quantity and scansion will not be required. Teachers should train the pupils' ear to catch the rhythm.)

SINGING.

Singing should find a place in the time-tables of all classes in all schools.

It may be merely singing by ear, but it is very desirable that in all schools where arrangements can possibly be made to do so singing from notes should be taught. It is recommended that the tonic sol-fa notation should be used in the lower classes and a transition to the staff notation effected later.

Whether singing from notes is taught or not voice production and the formation of a good style should be attended to. With these objects breathing exercises should be practised. Pupils should be made to take a full breath, retain it for a few seconds and then expel it suddenly. Gradually they should be accustomed to taking longer breaths and to retaining the air for a longer time before expelling it. A modified form of the same exercise is to expel the breath very slowly, not by closing the throat but by allowing the ribs to collapse naturally though very gradually. Other similar exercises are described in books on the subject. In such exercises and during the singing lesson an easy position should be assumed, there should be no stiffness of body. In producing notes care should be taken that the mouth is well opened and that the lips are properly used for the production of the various vowel sounds. Pupils should not be allowed to force their voices, they should not be allowed to shout. Notes should be produced softly, and distinct enunciation should be insisted upon.

Great care is necessary in the selection of songs. The present practice of singing drawing room ballads in chorus is to be deprecated. Both words and music of the songs sung should be good. Many good school song books in both notations have been published and every school should be supplied with at least one such. A list of books and appliances is appended for the assistance of managers but without any intention of prescribing the books in it.

The words of songs of literary merit learnt by heart may be counted among the lines of poetry to be committed to memory.

1. Tonic sol-fa—J. Curwen Novello's Music Primers, No. 18.
2. Graduated exercises for school classes—Tonic sol-fa (containing 232 exercises).
Novello & Co. (Limited), Berner's Street, London W.
3. Modulator—on cloth with rollers.
Smaller sizes.
Tuning forks.
4. Standard course exercises Nos. 1—3.
No. 5.
Mixed voice exercises.
Exercises in tune.
5. How to teach the staff notation to tonic sol-fa pupils—Edward Mason:
J. Curwen & Sons (Limited), 24 Berner's Street, London W.
6. Approved songs, Parts I and II (each)—staff.
sol-fa.
7. The Art of Breathing—Leo Kofler.
8. The speaking voice—Mr. Emil Behnke.
9. Brahms' children's songs.
10. Graded rounds and catches (in either notation).
11. Macnamara's school songs (both notations)—(1) an exclamation song, (2) a laughing song, (3) a sneezing song, (4) a crying song.
12. New century song book—Two part songs for schools. Pianoforte edition.
Tonic sol-fa.
13. Old English songs—John Kinross. Pianoforte edition; sol-fa.
14. Old-time songs—George Oakey, Parts I—VIII; Tonic sol-fa.
15. The Paragon song book. Pianoforte edition; sol-fa.
16. Shakesperian songs for schools—G. Stokes, Parts I and II with accompaniment;
sol-fa.
17. Six trios for schools—Words by Longfellow, old notation, with accompaniment;
sol-fa.
18. Songs of the British Empire, old notation; sol-fa.
19. Songs of the British Islands—W. H. Hadow, old notation.
20. Songs of the Royal Navy—G. W. Bishop, sol-fa.

FREEHAND DRAWING.

Instruction in this subject should be regarded as a means of cultivating in pupils a faculty of observing, comparing, recollecting and thinking about all sorts of objects with a view to representing them in an intelligent and careful manner.

The full course should include freehand and free arm drawing of familiar and easy objects from the objects themselves, from flat examples and from memory, drawing of symmetrical and decorative figures and designs, composition drawing, *i.e.*, grouping of objects hitherto drawn separately, with special reference to illustration of stories.

Manner.—The ideal succession of media is probably—

- (1) Chalk and black-board (or black wall).
- (2) Chalk (soft crayons) on paper.
- (3) Soft point (brush) on paper.
- (4) Hard point-pencil (hard crayon) pen and ink on paper.
- (5) Water colours.

By a succession of media is meant that they should be taken up in the order given, but by no means that as each is taken up the others should be discarded.

In the beginning the medium used should not offer much resistance to the hand and should be easily erasible. The pupils should be encouraged to draw freely from the shoulder without using the flexing power of the fingers (free arm). The next stage differs chiefly in the work being less easily erasible. The pupil draws on the commonest brown or grey paper with the white or coloured crayons. He should still work "free arm," the paper being fastened to a small board which can be supported in a slot cut in the top of the desk or on a wire frame on the desk or by the pupil's

left hand. He should not be left without direction in the choice of colour, although the taste of the class and perhaps at times of individual members of it should be consulted.

Brush work brings into play the wrist and fingers. The materials for it need not be expensive. Any fairly absorbent paper will do. Sable brushes are of course much the best and probably more economical in the long run, but camel's hair will do. They must not be too small. The finest line can be drawn with a large brush if it is a good one. For colours, tablets of dry paint can be purchased in most bazaars and from these a solution suitable for pupils' use can be made in the school.

Pencil Drawing (freehand) is again done with the wrist and fingers. It is worthless unless really "freehand," *i.e.*, unless it involves the production of firm even lines as long as can be made with one continuous movement of the wrist and fingers. Practically no "freehand" now done in the school satisfies this test or is in fact freehand at all. The pencil used should not be too hard. For shading (complete black and white drawing) a black crayon may be used or a softer pencil. Practice with pen and ink may follow. Although classed here as "hard point" it is really intermediate between the brush and the pencil because there is considerable flexibility in the nibs of the pen. Though the drawing course would be reasonably complete without it it is recommended to teachers desirous of more variety.

The use of complete water colour drawing apparatus for the making of realistic representations may be the completion of the course, but it is not likely that many pupils will go so far. Boys who show a special aptitude for drawing may however be encouraged to take up water colour sketching as a hobby.

Notes.—(1) An early start should be insisted on. It must be remembered that in the early stages it is as natural for a child to express itself by drawing as by writing. Curved lines should be practised before straight because they are easier and of more frequent occurrence in nature. Pupils should not be kept long at copies showing exclusively either curved or straight lines. What is to be copied from the flat should be drawn on the black board by the teacher and should depict something not consisting of meaningless ornament. Drawing from the round may begin as soon, or nearly so, as drawing from the flat, and, in the later stages, should form the bulk of the work which will consist in the study of a variety of object of increasing complexity. The transition from the flat to the round may be by means of flat objects, *e.g.*, an envelope, a painter's palette shapes cut out in card board or tin. In selecting real objects care should be taken to choose those familiar in the pupil's school or home-life or connected with some other part of the school work. The pupils should be encouraged to draw rapidly objects mentioned in their other lessons and to illustrate stories told in class.

(2) The study of perspective as a separate subject is not recommended, but a knowledge of its main principle, is obviously very helpful in object drawing. These principles should be made the subject of demonstrations as occasion arises for them, pupils being led to formulate them for themselves as the result of observation. The use of stereotypes "models," *e.g.*, cubic prisms is to be deprecated. Such abstractions as are implied in these should be the result of and not an introduction to the study of forms as displayed in objects.

(3) Drawing in the mass should precede line drawing; the simplest form of mass drawing, in which the outline is reached from within, as in drawing an orange as a long close yellow chalk spiral, belongs to infant drawing. In the higher classes the line convention may be taken to be clearly established and the main point to be considered is the introduction of colour and of light and shade. Colour may certainly be used from the first but care should be taken to keep it significant and simple. Realistic black and white had probably better be begun on the blackboard by emphasizing with the chalk the high lights in the objects drawn. The next advance is to shadings on paper with the soft pencil or black and white crayons. Shading with the pen is also a good exercise.

Even in line drawing, the idea of mass must not be absent. Pupils must not be allowed to use guide-lines, but must be taught from the first to block in roughly the parts of the object, studying their proportionate dimensions and relative positions. There should be no making of lines to order (*e.g.*, draw a perpendicular, divide it into two halves, draw a horizontal line through the lower half, etc.) in the vague hope that some pattern will result. The aim, *i.e.*, the complete picture should be clearly in the pupil's mind from the start. At the close of the lesson the construction of a geometrical frame work may at times be useful since by the aid of this the exact nature of errors may be discovered. Rulers or slips of paper should not be used for measurements in freehand work.

(4) Memory drawing should be practised from the first, either of the copies or objects studied as part of the course or of forms specifically memorized for reproduction.

(5) Design, provided it does not degenerate into mere copying, may very usefully be taken up towards the end of the course. It should involve the conventionalising of the forms of common objects, especially of leaves, flowers and birds and the arrangement of such forms in geometrical patterns.

(6) The full value cannot be got even from subject matter interesting in itself unless the teacher draws the pupils' attention to its salient features. The class should be questioned about the object to be drawn, its real nature and uses must be elucidated, information being given when necessary, and its relation to other school work emphasised. The appearance in different lights and from different points of view, and the means suitable for realising the aim of the lesson, *i.e.*, the realistic representation of the object by each pupil as he himself sees it—must then be discussed. The drawing should next be attempted, the teacher giving as much individual attention to pupils as he can find time for. In giving this attention he should seek to form in them the habit of self-criticism by encouraging them to try to find out their own faults and to correct them, rather than by correcting them himself. Finally it will be often useful for him to sketch the object on the blackboard with reference to any error he may have noticed to be particularly prevalent.

(7) The teacher must always bear in mind that it is his business to teach his pupils to draw, not to produce a number of finished drawings. He should not keep his class long at any one copy or object. Even if the class has failed to master any particular object they have had practice which will help them to succeed better with the next. The common practice of using drawing books favours the idea that the object in view is the production of a collection of drawings. It is also very difficult with a drawing book to get a flat surface to draw upon.

(8) *Accommodation.*—It is desirable that every school should possess a room or hall specially set apart for Drawing. Special care should be taken to provide suitable desks or tables for the maximum number of pupils to be taught in one class. As a rule, single tables or desks will be found far more conducive to good work than desks at which several pupils are seated in a row. Blackboards for free-arm chalk work should be arranged all round the drawing room or a portion of the wall all round should be specially prepared so as to provide a suitable black surface.

GEOMETRICAL DRAWING.

MIDDLE SCHOOL COURSE BBB.

- (1) The use of drawing instruments.
- (2) Explanation of terms used in Geometry.
- (3) Methods of drawing lines, triangles, squares, and rectangles to satisfy given conditions.
- (4) Simple problems relating to the line and circle.
- (5) Regular polygons—Construction on a given side, Inscription in a given circle.
- (6) Construction of irregular polygons having given angles and sides.
- (7) Simple inscribed and described figures.
- (8) Proportional division of lines, mean proportional to two given lines.
- (9) Construction and use of plain scales, and scales of chords.
- (10) Areas of simple figures; reduction of irregular figures, to triangles and squares of equivalent area.
- (11) Reduction and enlargement of plane figures; construction of figures similar to given figures.
- (12) Elementary constructions required in drawing out geometrical patterns and simple tracery.
- (13) The construction of polygons from adequate conditions of sides, angles, area or perimeter.
- (14) Miscellaneous problems relating to lines, circles, and plane figures.
- (15) Proportional division of lines; third, fourth and mean proportionals.
- (16) Construction required in dealing with lines which intersect at inaccessible points.
- (17) The construction of plain and diagonal scales to different units.

HIGH SCHOOL COURSE AA.

Plane Geometry.

- (1) Construction of plane curves such as the ellipse, parabola, hyperbola, cycloid, epicycloid, hypocycloid and simple spirals.
- (2) The drawing of very simple loci or point paths.
- (3) The construction of simple curves from tables, or observed data.

Solid Geometry.

- (1) The principles of projection. Definitions of terms in general use—Projector, plan, elevation, section, trace, etc.
- (2) Simple problems relating to lines and planes.
- (3) Plans and elevations of plane figures, having given inclination of two sides or of plane and one side.
- (4) Plans and elevations of simple solids in easy positions.
- (5) Problems relating to lines and planes.
- (6) The regular solids; projections to satisfy given and not very difficult conditions.
- (7) Sections of solids by vertical, horizontal, or inclined planes.
- (8) Simple problems on the projection of the sphere, cone, and cylinder.
- (9) The Helix.
- (10) Isometric projection.

THE INFANT CLASSES.

In teaching these classes (and also the one or two standards above them) it is necessary to bear in mind that the aim is the general development of the children's intelligence and of the habits of order and attention rather than a premature mastery of the arts of reading, writing and cyphering. It is now generally recognised that this aim can best be realised by a training which seeks to make a transition from the irresponsible play of childhood to the conscious and systematic effort of regular school work. Methods of teaching which have this aim in view are commonly called kindergarten methods, and such methods should be employed in the infant classes of European schools. Teachers must however guard against a too narrow interpretation of the word kindergarten. It implies much more than the use of the Froebelian "gifts" and indeed does not necessarily employ their use at all. It does, however, imply a large use of play, simple drill, story-telling and talks about the stories, the handling and observation of a variety of things and talks about them, the singing of songs and the practice of simple arts with a view to hand and eye training. Through such occupations the child learns to control his muscles, enlarges his vocabulary and his power of expression, increases his stock of knowledge, and exercises his memory and his imagination. He also learns to act in concert with his companions and his teacher, to be obedient and attentive and to strive to realise a definite aim. It is however quite possible so to arrange his school occupations as to enable him to make a beginning in the arts of reading, writing and arithmetic, and at the end of the second school year pupils should be able to read, write and spell a considerable number of short and common words, should be able to count and to add, subtract, multiply and divide low numbers with the aid of counters and be able to give from memory all the results obtainable with not more than 50 counters.

While the department does not propose to prescribe "kindergarten occupations" it should be recognised that all those practised are not of equal value. Probably the best are drawing and clay modelling. Work with coloured paper, folding and plaiting, are useful so is seed or counter laying, provided it does not consist in laying counters on a previously drawn pattern. Children should, instead, be trained to construct symmetrical patterns for themselves using always a definite number of counters. Occupations of the nature of sewing are useful as a preparatory training for that art, but anything that requires minute accuracy, like the threading of small beads, is unsuitable for little children. Occupations of the nature of "fancy work" should not be exclusively used. They please parents and children, but their value from an educational point of view is small.

Care should be taken to avoid too great formality in infant school teaching. The rigid following of a time-table spaced out into "subjects" is unnecessary. The ideal school session is one in which the teacher leads the children from one occupation to another by a transition which seems natural and almost inevitable. This ideal underlies the use in many schools of stories with correlated "occupations" songs and games. The weak point of the system is that songs and games require much practice and can properly be frequently repeated, while stories should not be told over and over again. Teachers therefore, while seeking to make the session's occupations as connected as possible, should be on their guard against sacrificing too much to the idea of correlation. They should also rid themselves of the idea that any fixed number of stories or "occupations," is required as was the case under the old Madras Educational Rules. Infant school occupations are a means to an end, not an end in themselves, and the best school is not that which shows the largest display of fancy work or the most accurate rendering of a fixed number of stories but that in which the children manifest the liveliest intelligence and the greatest readiness to grapple with an unfamiliar task.

IV

Official Memorandum, No. 581-2, Educational, dated 23rd March 1908.

The Government of India have suggested that, while the question of the curriculum for European schools is under consideration, the opportunity may be taken to revise the list of high schools for Europeans and to include in that list no schools which

do not provide for the suitable instruction of pupils in a high school curriculum. The Director of Public Instruction is requested to state whether any, and if so what, action has been taken in the matter. It has been suggested that, after giving reasonable time for the necessary notification to managers, no school should be classified as a high school unless its classes in that stage are taught by University graduates or by teachers whose educational qualifications are, in the opinion of the Director of Public Instruction, equal to those of graduates. Schools which cannot attain to this level should be classified as below the high school stage.

H. D. TAYLOR,
Ag. Secretary to Government.

To the Director of Public Instruction.

V

Letter—from the Hon'ble Dr. A. G. BOURNE, F.R.S., Director of Public Instruction, Madras.

To—the Secretary to Government, Educational Department.

Dated—Ootacamund, the 8th May 1908.

No.—R.C. 2276/08.

With reference to Memorandum No. 581-2, Educational, dated 23rd March 1908, in connection with the revision of the list of high schools for Europeans, I have the honour to state that until the question of the curriculum is settled it is impossible to say certainly which schools are fitted to undertake it and which are not.

I called, however, for a report on the subject from the Inspector of European and Training Schools. Of the ten high schools for European boys in this Presidency, the status of one or two only is doubtful.

Order—No. 364, Educational, dated 13th May 1908.

The revised curricula and syllabuses for European schools, and for the Primary scholarship and the Middle and High School and Scholarship examinations for Europeans, submitted by the Director of Public Instruction, are approved.

2. The Director is requested to revise the list of high schools for Europeans with reference to the revised curricula and to include in the list no schools which do not provide for the suitable instruction of pupils in a high school curriculum. The result of the action taken by him in this matter should be reported to Government.

(True Extract.)

C. A. SOUTER,
Ag. Secretary to Government.

To the Director of Public Instruction.

EDUCATIONAL DEPARTMENT.

NOTES CONNECTED WITH G.O., No. 364, EDUCATIONAL, DATED 13TH MAY 1908.

[SUBJECT.—*Alteration in the curriculum prescribed in the Code of Regulations for European Schools.*]

Previous papers.

G.O., Nos. 565, 566, Edl., dated 19th Nov. 1903.	
" No. 598 " " 5th Sept. 1905.	
" " 599 " " 5th " "	
" " 220 " " 26th Mar. 1906.	
" Nos. 311, 312, " " 4th May "	
" " 493, 494, " " 23rd July "	
" No. 415 " " 1st " 1907.	

From the Government of India, Home Department (Education), dated 8th June 1907, No. 4-1.

Please see the notes and orders with G.O., No. 493, Educational, dated 23rd July 1906.

2. For convenience of reference the facts are briefly set out below.

3. In forwarding the Code of Regulations for European Schools, as finally approved by them, the Government of India stated that they were not satisfied with the curriculum as defined in the Code, which they regarded as open to the criticisms indicated by the Hill Schools Committee in paragraph 56 *et seq.* of their report * on Hill schools for Europeans and they therefore desired that the curriculum should be specially examined with the view of consolidating the courses in the various classes of schools on the lines proposed by the Hill Schools Committee and that definite proposals should be made for altering the curriculum. They also suggested that the revised curriculum should provide for the inclusion of a vernacular language in the regular course of study in all schools for boys.

Paragraph 56 of the report with G.O., No. 598, Educational, dated 5th September 1905.

4. The criticisms of the Hill Schools Committee were—

"The Code prescribes but two subjects as compulsory (English and Arithmetic) and leaves all the rest optional, only requiring that for the purpose of the High School examinations not less than three and not more than seven optional subjects shall be taken. Consequently it does not so much lay down the courses of study as offer a variety of syllabuses of study in different subjects, leaving the composition of the curriculum to the individual schools. This arrangement, under which the studies of all grades of school are regulated by a comprehensive Code applicable alike to the smallest primary and the largest secondary school is an unusual one."

"The combinations of subjects found in the schools seem to be very much

Paragraph 59 of report.

"determined by the prospects of catching

"marks in the different examinations and

"these being numerous, more alternatives are offered by the schools than can be efficiently taught. . . . The question therefore arises whether the schools could be re-classified according to curriculum, one course being assigned to each school and provision being made for its being well taught. This might be an ideal solution, but seeing that the choice of schools is already subject to several other considerations, those of proximity of religion and of expense, it is impossible to classify the hill schools by curriculum. . . .

"Thus there should be two alternative curricula—one consisting of English,

Paragraph 68 of report.

"Latin, Mathematics, History and

"Geography and Urdu and the other

"consisting of Science, Mathematics, History and Geography and Urdu with a less advanced course of English and Latin. To both of these curricula would be added, as occasion permits, singing and music, drawing and manual instruction."

5. The Director of Public Instruction (Dr. Bourne) who was consulted in the matter considered that it was unnecessary to consider any detailed curriculum in the Code, and recommended that "in

Paragraph 22 of the Director of Public Instruction's letter on page 5 of G.O., No. 220, Educational, dated 26th March 1906. "the place of the curriculum in the Code it should be prescribed that the edu-

Paragraph 25 of the Director of Public Instruction's letter on page 6 of G.O., No. 220, Educational, dated 26th March 1906. "cation given in the primary and middle standards of European schools should be based on a graduated course of instruction suitable to the age and capacity of the pupils in the following subjects:—

"(1) The English language.

"(2) Arithmetic.

*"(3) Knowledge of the common phenomena of external things.

"(4) Geography.

*These should be in every syllabus of these schools?

"(5) History.

*"(6) Drawing with other simple hand and eye-training.

G. S. F[ORBES].

"(7) Singing.

"(8) Physical exercises.

*"(9) Plain needle-work for girls.

"(10) Hindustani or an Indian vernacular, which should ordinarily be that of the locality.

6. The Director of Public Instruction further observed—

"A great part of the instruction in infant classes should be given by means

"of appropriate and varied occupations.

Paragraph 25 of the Director of Public Instruction's letter on page 6 of G.O., No. 220, Educational, dated 26th March 1906. "One or more of the above subjects of instruction might be omitted where the department is satisfied that there is

"good reason for the omission.

"Instruction might be given in one or more of the following additional subjects:—Mathematics (Experimental Geometry, Mensuration and Algebra), Latin, modern languages, manual training, and for girls, domestic economy, fancy needle-work, and cookery; provided always that the conditions of article 25 are fulfilled.

"The head teacher should draw up a detailed course of studies for each class and each subject taught in the school which should receive the Inspector's approval before being adopted.

"With regard to high school classes no detailed curriculum has been prescribed

Paragraph 26 of the Director of Public Instruction's letter on page 6 of G.O., No. 220, Educational, dated 26th March 1906. "in the Code, and I do not think that any is required. It would be sufficient to prescribe for these classes, as for the

"primary and middle classes, certain

"subjects which must be taught and certain subjects which may be taught, provided that they meet the requirements of the school and that there is adequate means of

"teaching them. The head teacher of each school might be left to draw up a detailed course of studies for each class and each subject, which should receive the Inspector's sanction before adoption.

"The compulsory subjects might be those proposed in paragraph 68 of the High Schools Committee's report, viz., English, Latin, Mathematics (comprising Arithmetic, Experimental and Deductive Geometry, Algebra and Mensuration), History, Geography, a vernacular, singing and music, drawing and physical exercises. As optionals might be taken up 'manual instruction' and any subject in the Scholarship examination not included in the compulsory course.

"In girls' schools, Latin need not be taught, and a modern language and Geometry, Algebra and Mensuration might be made optional."

Paragraph 28 on page 7 of G.O., No. 220, Educational, dated 26th March 1906. Dr. Bourne also submitted two schedules in accordance with his proposals.

7. The Government generally accepted Dr. Bourne's views and while considering that no hard and fast rule was desirable, they observed that considerable discretion might be left to the teaching staff and that it would be an advantage if alternative curricula for High school classes were prescribed as proposed by the Hill Schools Committee in paragraph 68 of their report, one consisting of subjects (1), (2) and 4 to (9) in schedule II appended with a less advanced course of mathematics.

8. The Government of India observe that there has been some misapprehension with regard to the meaning attached to the expression "curriculum", by which they mean "a complete list of subjects taught or learned". They observe:—

"A detailed plan of the steps prescribed or followed in one subject is usually termed a syllabus. It appears from your letter and from Dr. Bourne's letter of 1st January 1906, that it has been supposed that by curriculum the Government of India meant a complete set of prescribed syllabuses. This is not however the case; and if this misunderstanding is removed it appears that the Government of Madras are in substantial accord with the Government of India on the subject of curricula. I am, however, to observe that the Government of India do not agree with the opinion expressed by Dr. Bourne that it is advisable to abolish syllabuses altogether. In their view it is the duty of the Education Department to give necessary guidance to school managers in the framing of suitable syllabuses. They do not wish to suggest that the Education Department should prescribe identical syllabuses in all schools. They consider that teachers should be allowed reasonable freedom in this respect, and should be encouraged to use it. I am to suggest that the department should circulate and publish a syllabus or, better still, alternative syllabuses, for each subject and should also permit schools to submit their own syllabuses for approval. The Government of India will have no objection to the insertion of a clause permitting managers of schools to submit alternative syllabuses of their own for any subject. But the Code should contain a sample syllabus in each subject, which would be framed by the Local Government on the advice of the Education Department: and it should be open to the Local Government to modify it as often as they think fit."

9. The Government of India make the following further suggestions:—

(1) that it should be considered whether it would not be preferable and more conducive to the freedom which is desired to prescribe two or more alternative curricula, each complete, as far as possible, in itself,

(2) that singing and music, drawing and manual instruction should not be considered as compulsory parts of these curricula, but rather as desirable features of the general scheme of instruction to be taught when the requisite equipments and staff are available;

(3) that if alternative curricula are fixed for the schools, the High School Scholarship examination must necessarily be modified so as to be confined to these approved curricula;

(4) that an alternative curriculum should be arranged so as to include science, which is now omitted; and

(5) that a clear distinction may be made as proposed by this Government between those middle schools in which the pupils will proceed further and those in which they will not, and that the proposed rules for the curricula should be made sufficiently definite.

10. The Government of India further request that, while the question of curriculum is under consideration, the opportunity may be taken to revise the lists of High schools and to include in the list no schools which do not provide for the suitable instruction of pupils in a High school curriculum.

They further suggest that, after giving reasonable time for the necessary notification to managers, no school should be classified as a High school unless its classes in that stage are taught by graduates or by teachers whose educational qualifications are in the opinion of the department equal to those of graduates.

H. D. TAYLOR. 11. It is submitted that the letter from the Government of India may be forwarded u.o. to the Director of Public Instruction with the request that the curriculum and the syllabuses may be revised in accordance with the suggestions made by that Government.

12. As regards India's suggestion regarding the High school scholarship examination it is observed that in G.O., No. 415, Educational, dated 1st July 1907, the Government have decided that these scholarships should be awarded on the results of the Matriculation Examination, and the Government of India have been addressed in letter No. 416, Educational, dated 1st July 1907, to amend article 103 of the Code of Regulations for European schools in this respect.

13. A copy of G.Os., Nos. 415-16, Educational, dated 1st July 1907, was available only to-day.

K. RANGASWAMI AIYANGAR—13-7-07.

C. A. SOUTER—16-7-07.

Please see also linked file.

H. D. TAYLOR—17-7-07.

G. S. F[ORBES]—18-7-07.

To the Director of Public Instruction.

On receipt of the file a Committee of four members was appointed by Mr. Logan to formulate and submit proposals for alternative curricula and sample syllabuses in the various subjects included in these curricula.

The Committee has held three meetings, in which the distinction of curricula, with reference to the purpose of various classes of schools, has been discussed and sample syllabuses in some of the subjects of these curricula, prepared by individual members of the Committee, have been revised by the Committee as a whole.

Syllabuses have not been prepared in all the subjects and the Committee is not yet ready with final proposals regarding the subjects to be included in the various curricula.

These are matters in regard to which there must be considerable difference of opinion, and I cannot hurry the Committee to an indefinite extent. I therefore return the file and will submit the detailed proposals as soon as they can be got ready.

A. G. BOURNE—10-10-07.

To lie over pending receipt of detailed proposals.

H. D. TAYLOR—11-10-07.

The detailed proposals promised by the Director of Public Instruction in his unofficial *supra* have not yet been received. May he be reminded please?

K. RANGASWAMI AIYANGAR—11-12-07.

Give him some more time. The matter is complicated.

C. A. SOUTER—12-12-07.

Demi-official from the Hon'ble Mr. A. G. Bourne, D.Sc., Director of Public Instruction, to the Secretary to Government, Educational Department, dated 16th December 1907, No. 155.

I send herewith, with my official letter, Cur. No. 9037, dated 14th December 1907, a proof copy of the revised syllabuses with the curricula for the various classes of European schools and for the several Scholarship examinations.

The syllabuses require some further proof correction, and I would therefore suggest that if the document is approved by Government it should be issued by the Director.

From the Director of Public Instruction, dated 14th December 1907, No. 9037.

The Director of Public Instruction submits for the approval of Government revised curricula for the various classes of European schools and for the Primary scholarship and Middle and High school and Scholarship examinations and revised syllabuses for European schools in the subjects noted in the margin.	
English.	Geography.
Mathematics.	Latin.
Physics.	Singing.
Chemistry.	Drawing.
Elementary Science.	Infants' work.
History.	

2. The syllabuses and curricula submitted have been drafted by a Committee of four Educational officers appointed by Mr. Logan consisting of Messrs. Stone, Middlemast, Duncan and Mayhew. The Hon'ble Mr. Bourne agrees generally with the recommendations made by the Committee.

3. For the purposes of the revised curricula, a clear distinction has been made between those Middle schools in which the pupils will proceed further and those in which they will not, as suggested by the Government of India in paragraph 4 of Mr. Fell's letter No. 421, dated 8th June 1907, and a corresponding differentiation has also been made in High schools which have been divided into two classes.

4. The High and Middle schools, as now reclassified, stand as follows:—

A. High schools preparing pupils for the University or for the liberal professions.

AA. High schools preparing pupils for admission to Technical schools and colleges—for entrance on a commercial or industrial career—or for work in a Government department not requiring a University training.

B. Middle schools preparing pupils for A.

BB. Middle schools preparing pupils for AA.

BBB. Middle schools preparing pupils for some profession for which a High school course is not required.

5. The classification of the Middle and High schools above proposed seems to be a good one. It is, however, doubtful whether in practice, managers of schools will find it possible to adhere to this classification. Managers of schools will either have to maintain two different sections of Middle and High school classes in their schools, or they will have to decide which class of schools they should maintain and the decision will depend to a very large extent on the inclinations of students. It is difficult to imagine how students entering the Middle school course will be able to

decide, whether they should stop with the mere High school course or whether they should proceed to the University course. The result will be that at the end of the Middle school course there will be a tendency on the part of the students to change their course of instruction either from the University to the non-University course or *vice versa*. If the proposed classification of the schools is adopted provision will have to be made in the Code for the transfer of pupils from the schools of one class to the other.

6. As regards syllabuses and curricula, the Government of India are of opinion that the Code should contain a sample syllabus in each subject which should be

Paragraph 2 of India's letter. framed by the Local Government on the advice of the Educational department and that it should be open to the local Government to modify it as often as they thought fit. They further point out that, while the Hill Schools Committee proposed two alternative curricula, the Government of Madras suggested one curriculum with certain optional subjects added, and suggest—

(1) whether it would not be preferable and more conducive to the freedom which is desired, to prescribe two or more alternative curricula each complete, as far as possible, in itself;

(2) that singing and music, drawing and manual instruction should not be considered as compulsory parts of these curricula in the sense that candidates for scholarships should be compelled to take them as examination subjects;

(3) that, if alternative curricula are fixed for the schools, the High School Scholarship examination must necessarily be modified so as to be confined to these approved curricula; and

(4) that science should be included in the curriculum of the High school classes and it should not be added merely as an optional subject.

7. The curricula have been revised in accordance with the above suggestions of the Government of India. Separate curricula have been prescribed for each of the classes of Middle and High schools above specified, and the syllabuses have also been revised with reference to the suggestions of that Government. The examination curricula contained in the Code of Regulations for European schools have also been modified with reference to the revised syllabuses and curricula of schools. The number of subjects prescribed for each examination is generally the same as the number of compulsory and optional subjects allowed according to the Code of Regulations for European schools. Dr. Bourne considers it desirable to abandon the practice of allowing candidates to take up one or two additional optional subjects as it tends to encourage the cramming up of such subjects just before the examination with a view to gain marks rather than education.

8. The curricula and the syllabuses for each class of schools will be discussed below.

9. *Primary schools and Primary Scholarship examinations.*—The curriculum prescribed for Primary schools in the Code and that now recommended by the Committee and the Director of Public Instruction are compared below :—

Curriculum given in the Code. *	Curriculum recommended by the Committee.
Compulsory—	
English.	(1) English.
Arithmetic.	(2) Space and number work.
Geography.	(3) Geography.
Object Lessons.	(4) History.
Kindergarten.	(5) Elementary science.
Needle-work for girls.	(6) Second Language (vernacular). (Latin or modern European language in Primary sections of High schools,—Class A only).
Optional—	
A Second Language (Latin, French, German or a vernacular).	(7) Drawing (boys) or needle-work (girls).
Elementary Science.	(8) Singing.
Drawing.	
Singing.	

* Pages 26 to 32.

The course prescribed for the Primary Scholarship examination in the Code and that now recommended by the Committee and the Director of Public Instruction are as follows :—

Laid down in the Code.*	Recommended by the Committee.
Compulsory subjects—	
(1) English.	(1) English.
(2) Arithmetic.	(2) Space and number work.
Optional subjects (only three of the following subjects shall be taken)—	(3) Geography or History or Elementary Science.
(1) Geography and Map-drawing.	(4) Second Language (Vernacular, or Latin or modern European Language).
(2) Vernacular.	(5) Free-hand drawing (boys) or Needle-work (girls).
(3) Needle-work (for girls only).	
(4) Drawing.	

NOTE.—Boys must take Geography and girls must take Needle-work.

* Article 93.

10. The Director of Public Instruction observes that it has seemed best to regard all primary schools and primary sections of schools as of one type, primary sections of University High schools (class A referred to in paragraph 4 *supra*) being slightly differentiated from those of other schools in the choice of a second language.

11. *Curriculum for High and Middle schools and for the High and Middle School Scholarship Examinations.*—Three different curricula have been prescribed for the three classes of Middle schools and two separate curricula for the two classes of High schools specified in paragraph 4 *supra*.

12. *Middle Schools.*—The curriculum prescribed for Middle schools in the Code and the revised curricula prepared by the Committee for the three different classes of Middle schools are as follows :—

(Laid down in the Code.)†	Recommended by the Committee.		
Compulsory subjects.	Class B.	Class BB.	Class BBB.
(1) English.	(1) English.	(1) English.	(1) English.
(2) Arithmetic.	(2) Arithmetic.	(2) Arithmetic (with symbolic representation).	(2) Arithmetic (with symbolic representation).
(3) Algebra (for boys only).	(3) Algebra.	(3) Experimental Geometry.	(3) Geometrical drawing (boys) or Needlework (girls).
(4) Euclid (do. do.).	(4) Experimental Geometry.	(4) English and Indian History.	(4), (5) & (6) Any three of the following :—
(5) Mensuration (for boys only).	(5) English and Indian History.	(5) Geography (with special reference to Commercial Geography).	Indian History.
(6) Geography.	(6) Geography.	(6) Elementary Science.	Geography (with special reference to Commercial Geography).
(7) History.	(7) Elementary Science (for boys) or Domestic Economy (for girls).	(7) Mensuration.	Elementary Science.
(8) Domestic Economy (for girls only).	(8) Second language (Vernacular or Latin or modern European language).	(8) Second language (Vernacular or modern European language).	Hygiene (girls).
(9) Object lessons.	(9) Free-hand drawing (boys) or Needlework (girls).	(9) Singing.	Book-keeping and Commercial Correspondence.
(10) Needlework (for girls only).	(10) Singing.	Optional.	Short-hand.
(11) Drill.		Free-hand drawing.	Type-writing.
Optional Subjects.			Cookery (girls).
(1) Second language (Latin, French, German or Vernacular).			(7) Mensuration (boys) or Domestic Economy (girls).
(2) Physics.			(8) Second language (Vernacular).
(3) Physiology.			(9) Singing.
(4) Drawing.			Optional.
(5) Singing by note.			Free-hand drawing.
(6) Manual instruction.			

† Pages 33 to 41.

In the curricula recommended by the Committee, the subjects of study for all the three classes of schools are almost definitely prescribed; option to a certain extent only being allowed in the case of class BBB schools. In the printed curricula submitted by the Committee it is stated that Free-hand drawing may be continued in Standards V—VII of Middle schools of the classes BB and BBB, although the Director of Public Instruction in his letter states that Drawing and Singing have been recommended as compulsory subjects in the curricula of all schools.

13. The course for the Middle School and Scholarship examinations laid down in the Code and that now recommended by the Committee and the Director of Public Instruction are the following :—

Laid down in the Code.*

Compulsory subjects.

- (1) English.
- (2) Arithmetic.

Optional subjects.

Not more than six of the following subjects:—

- (1) Latin.
- (2) French.
- (3) German.
- (4) Vernacular.
- (5) Geography.
- (6) History.
- (7) Algebra.
- (8) Euclid.
- (9) Mensuration.
- (10) Science.
- (11) Domestic Economy (for girls only).
- (12) Drawing—Freehand and Geometrical.

NOTE.—In all cases, boys shall take Euclid, Algebra and a Second language, and girls shall take Domestic Economy.

* Article 95 on pages 17 and 18 of the Code.

14. *High schools.*—The Code of Regulations (*vide* page 42 of the Code) for European Schools lays down no course of studies for High schools; but states that the schools shall prepare students for the High school examination or such other examination as have been recognized by the Local Government. The curriculum for the High schools as laid down in the Code and the curricula for the High schools now recommended by the Committee are given below :—

Laid down in the Code.†

Compulsory subjects.

- (1) English.
- (2) Arithmetic.

Optional subjects.

Not more than seven of the following subjects:—

- (1) Latin.
- (2) French.
- (3) German.
- (4) Vernacular.
- (5) Geography.
- (6) The Histories of England and India.
- (7) Algebra.
- (8) Euclid.
- (9) Mensuration.
- (10) Trigonometry and Logarithm.
- (11) Physics.
- (12) Physiology.
- (13) Logic.
- (14) Political Economy.
- (15) Domestic Economy (for girls only).
- (16) Model drawing and Perspective.
- (17) Free-hand drawing and Geometrical drawing.
- (18) Book-keeping and Commercial Forms and Commercial Correspondence.
- (19) Any other subjects approved by the Department.

NOTE.—Boys must take Euclid, Algebra and a second language, and girls must take Domestic Economy.

† Article 97 on pages 18 and 19 of the Code.

Recommended by the Committee.

- (1) English.
- (2) Mathematics.
- (3) & (4) Any two of the following :—
Geography.
History.
Elementary science.
Domestic Economy (girls).
Hygiene.
Short-hand.
Typewriting.
Book-keeping.
- (5) Second language (Latin or vernacular or modern European language).
- (6) Free-hand drawing or Geometrical drawing and Mensuration or Needlework (girls)

15 The following are the main points of difference between the revised curricula and those contained in the Code :—

(1) A good many alternative subjects not alluded to in the Code of Regulations for European Schools are specifically mentioned in the curriculum for non-University High schools, because it is considered desirable to draw the attention of managers to the possibilities of a "practical" education.

(2) Physiology, Logic and Political Economy allowed by the Code of Regulations for European Schools have been excluded intentionally as being less suitable than other subjects for High school classes.

(3) A second language is prescribed as an alternative but not as a compulsory subject of the High school examination since it is felt to be undesirable to insist on a second language in the case of non-University High schools.

(4) Latin has not been made *compulsory* in any school, while it is excluded entirely from the curriculum of non-University High schools and both Latin and modern European languages have been excluded from Middle schools providing a complete education.

The idea underlying these proposals is that Latin can only be required by those intended for higher education in a University, that both Latin and French are too often taken because it is easier to pass in them than in the vernacular and that the vernaculars (including Hindustani) require far more attention than they now get in European schools.

(5) Physics and Chemistry have been made compulsory in the High School examination, because an elementary knowledge of these subjects is regarded as generally necessary for higher education whether of a general nature at the University or of a professional nature in some school or college.

(6) In the curriculum of High schools of class A, alternative subjects to Physics and Chemistry are allowed—these alternatives also (with the exception of those intended for girls only) are branches of Natural Science.

(7) Drawing and Singing are prescribed as compulsory subjects in the curricula of all schools though not in all the school and scholarship examinations.

16. The Director of Public Instruction states that in the preparation of the High School syllabuses and curricula an attempt has been made to avoid on the one hand a too rigid adherence to the University Matriculation course and to provide on the other hand courses which, if successfully accomplished, might be regarded as the equivalent of that course. He further states that if the proposals now submitted by him meet with the approval of Government, he will forward them to the University of Madras with the request that the High School examination now provided for may be regarded as the equivalent of the Matriculation examination.

17. It is however observed that while for the High School and Scholarship examinations Physics and Chemistry are prescribed as compulsory subjects; in the curriculum for High school of class A, Physics and Chemistry are only two of the four optional subjects prescribed, excluding Domestic Economy and Hygiene, which are specially prescribed for girls. Thus, a student in a high school of this class who takes Botany and Physiography as his optional subjects will practically be debarred from appearing for the High School Scholarship examination for which Physics and Chemistry are compulsory, nor can he appear for the Matriculation examination for which also Physics and Chemistry are compulsory.

18. It is submitted that the revised curricula and syllabuses now submitted by the Director of Public Instruction may be accepted.

K. RANGASWAMI AYYANGAR—7-3-08.

So far as the curricula and syllabuses go, there seems little to criticize. It is noted moreover that the question papers at the various examinations in the Middle School and High School are sometimes set in alternative form so as to provide for the various classes.* This is sound. But what I cannot understand is how we are to get schools of the different classes. Are schools to confine themselves to one class? It is unlikely that it would ever pay them to do so. If not, are different

* In the sense used in the curriculum.

classes at great expense to be taught in the same school? This seems to me a real difficulty, but as the Director of Public Instruction does not mention it, it is perhaps unreal. The proposals may therefore be approved.

C. A. SOUTER—9-3-08.

I do not think that it will be possible in practice to restrict any school to any separate class for which a definite curriculum and syllabus has been prescribed. That is so the difficulty pointed out at 'A' must arise. The remarks of the Director of Public Instruction may be invited u.o. on this point. It would seem that there would be a great multiplication of classes in each school.

H. D. TAYLOR—10-3-08.

To the Director of Public Instruction

DIRECTOR OF PUBLIC INSTRUCTION'S OFFICE.

I think the difficulty pointed out is very real but I have foreseen it all along and my proposal was that no curricula should be prescribed and that the schools should be left to develop under the guidance of the Inspector along those lines which seemed most suitable in each case.

2. In the current I am complying with the wish of the Government of India for alternative curricula and I say that this difficulty must inevitably result from any attempt to carry out this wish.

3. I see nothing for it but to leave the schools to face the difficulty. After all nothing is absolutely prescribed. The schools will no longer be bound to follow the courses prescribed in the Code as issued, but as stated in the preamble to my "curricula" etc., "will doubtless select one of these curricula according to its peculiar needs."

A. G. BOURNE—13-3-08.

EDUCATIONAL DEPARTMENT.

I submit that as the Director of Public Instruction recognizes the difficulty pointed out, India should again be addressed. It seems more than probable that many schools which have just sufficient funds to get on with in present circumstances will have to close, or to change their system altogether. Under the proposed curricula if a school cannot maintain more than one class it is obvious that the result will be that many children who do not propose to go farther than a certain stage cannot enter the school. The proposal seems to me to be a restriction on education of a serious kind. The advantages are not so evident as to warrant this wide departure from existing practice. Surely it is sufficient to let these high schools go on under the care of the Inspector and the Department. Why should their development be retarded merely, as it seems, in the interests of certain examinations?

C. A. SOUTER—15-3-08.

I do not see that any action has been taken on paragraph 5 of the Government of India's letter as to the revision of lists of high schools. The Director of Public Instruction may be asked by official memorandum what action has been taken in this regard.

2. As to alternative curricula the Government of India appear still to be open to conviction—*vide* passage marked 'A' on page 1 of current file.

H. D. TAYLOR—15-3-08.

The draft memorandum placed below is for approval.

K. RANGASWAMI AIYANGAR—20-3-08.

C. A. SOUTER—21-3-08.

Issue.

H. D. TAYLOR—23-3-08.

[Memorandum No. 581—2, dated 23rd March 1908.]

Remind.

H. D. TAYLOR—2-4-08.

From the Director of Public Instruction, No. 2276, dated 8th May 1908.

In reply to memorandum No. 581—2, dated 23rd March 1908, the Director of Public Instruction states that until the question of the curriculum for European schools is settled, "it is impossible to say which are fitted to undertake it and which are not." Dr. Bourne, however, observes that he called for a report on the subject from the Inspector of European and Training Schools, and that of the ten high schools for European boys in this Presidency the status of one or two only is doubtful.

2. It is for consideration whether orders may not be passed now on the revised curricula and syllabuses for European schools submitted by the Director of Public Instruction which have been dealt with on pages 5 to 10 of these notes.

K. RANGASWAMI AIYANGAR—5-9-08.

For orders whether the proposed curricula and syllabuses may be approved. Please see the notes on pages 9 and 10 *supra*.

C. A. SOUTER—9-5-08.

I think we had better approve of the curricula and syllabuses and then see what the schools do as the Director of Public Instruction says it is quite possible the schools may find means of working the conditions—if not India must be addressed; but until we know how the schools will act, I don't think we can address India again. It is quite possible it will be unnecessary to do so.

M. H[AMMICK]—10-5-08.

Draft please.

C. A. SOUTER—11-5-08.

The draft order placed below is for approval.

K. RANGASWAMI AIYANGAR—11-5-08.

For approval.

C. A. SOUTER—11-5-08.

Approved.

M. H[AMMICK]—12-5-08.

Issue.

C. A. SOUTER—13-5-08.

[G.O., No. 364, Educational, dated 13th May 1908.]

Ed No. 1423.



No. 421

FROM

G. B. H. FELL, Esq.,
Deputy Secretary to the Government of India,

TO

THE SECRETARY TO THE GOVERNMENT OF MADRAS,
EDUCATIONAL DEPARTMENT.

Home Department.
Education.

Simla, the 8th June 1907.

SIR,

I AM directed to acknowledge receipt of your letter no. 494, dated the 23rd July 1906, on the subject of the curriculum for European schools.

2. The Government of India think that there has been some misapprehension with regard to the meaning attached to the expression "curriculum." By curriculum the Government of India mean a complete list of subjects taught or learned. A detailed plan of the steps prescribed or followed in one subject is usually termed a syllabus. It appears from your letter and from Dr. Bourne's letter of 19th January 1906 that it has been supposed that by curriculum the Government of India meant a complete set of prescribed syllabuses. This is not however the case: and if this misunderstanding is removed it appears that the Government of Madras are in substantial accord with the Government of India on the subject of curricula. I am, however, to observe that the Government of India do not agree with the opinion expressed by Dr. Bourne that it is advisable to abolish syllabuses altogether. In their view it is the duty of the Education Department to give necessary guidance to school managers in the framing of suitable syllabuses. They do not wish to suggest that the Education Department should prescribe identical syllabuses in all schools. They consider that teachers should be allowed reasonable freedom in this respect, and should be encouraged to use it. I am to suggest that the department should circulate and publish a syllabus or, better still, alternative syllabuses, for each subject and should also permit schools to submit their own syllabuses for approval. The Government of India will have no objection to the insertion of a clause permitting managers of schools to submit alternative syllabuses of their own for any subject. But the Code should contain a sample syllabus in each subject, which would be framed by the local Government on the advice of the Education Department: and it should be open to the local Government to modify it as often as they think fit.

3. Subject to the following observations, the Government of India see no objection to the adoption of the courses suggested in the schedules which accompany your letter.

In paragraph 6 of your letter the local Government imply that the course of studies for High School classes laid down in the schedule is based upon the suggestions made in paragraph 68 of the Hill Schools Committee's Report; but while the Hill Schools Committee proposed two alternative curricula the Government of Madras suggest one curriculum with certain optional subjects added. They consider that no hard-and-fast curriculum is desirable, but they

C.No. 2974
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EDUCATIONAL DEPARTMENT.

Received.....190 , Registered 1872 1907.

Subject.

Submitting for the approval of Government revised
syllabuses for European Schools.

ENCLOSURES.

No.

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Cur. No. 9037/07.

Station Madras , Dated the 14 December 1907 .

From (Name) The Hon'ble Mr. A.G. Bourne, D.Sc., F.R.S.,

(Designation) Director of Public Instruction,

To the Secretary to the Government of Madras,
Educational Department

Sir,

I have the honour to submit for the approval of
Government revised syllabuses for European Schools in the
marginally noted subjects together with the curricula for the

English.
Mathematics.
Physics.
Chemistry.
Elementary Science.
History.
Geography.
Latin.
Singing.
Drawing.
Infants' Work.

various classes of European
Schools and for the Primary
Scholarships and Middle and
High School and Scholarship
Examinations.

2. The examination curricula
contained in the Code of Regulations for European Schools have
been modified with reference to the revised syllabuses and
curricula of schools. The number of subjects prescribed for
each

have suggested one course only, with nine compulsory subjects; and the only
latitude allowed is in the selection of optional subjects. The Government of
India request that His Excellency the Governor in Council will consider whether
it would not be preferable and more conducive to the freedom which is desired to
prescribe two or more alternative curricula, each complete, as far as possible, in
itself. I am also to suggest that singing and music, drawing and manual instruc-
tion should not be considered as compulsory parts of these curricula in the sense
that candidates for scholarships should be compelled to take them as examination
subjects, but rather as desirable features of the general scheme of instruction to
be taught when the requisite equipment and staff are available.

There seems to be some misconception also regarding the High School
Scholarship regulations. Optionals, it is stated, might be selected from the
subjects for the High School Scholarship examination which are not included in
the compulsory course suggested. If alternative curricula are fixed for the
schools the High School Scholarship examination must necessarily be modified so
as to be confined to these approved curricula.

I am also to draw your attention to the fact that in the course of
studies in the High School classes there is no mention of the subject of science.
This is, apparently, a serious omission and it would appear to be necessary to
arrange for an alternative curriculum in which science should be included. If
therefore the Government of Madras desire to make provision for science
teaching, I am to suggest that they should do so by framing a curriculum
including science and that this subject should not be added merely as an optional
subject. If science is taught it must be taught systematically, and by providing
alternative curricula the subject can receive the necessary attention in those
schools which have the requisite equipment for efficient instruction.

4. With regard to paragraph 4 of your letter I am to say that the Govern-
ment of India have no objection to the proposal to make a clear distinction
between those middle schools in which the pupils will proceed further and those
in which they will not. They are of opinion however that the proposed rules for
the curricula are not sufficiently definite on this point.

5. I am also to request that, while the question of the curriculum is under
consideration, the opportunity may be taken to revise the lists of High Schools
and to include in that list no schools which do not provide for the suitable
instruction of pupils in a High School curriculum. I am further to suggest
that, after giving reasonable time for the necessary notification to managers, no
school should be classified as a High School unless its classes in that stage are
taught by University graduates or by teachers whose educational qualifications
are, in the opinion of the department, equal to those of graduates. Schools
which cannot attain to this level should be classified as below the High School
stage. In the opinion of the Government of India, if these conditions are
enforced, the High School education of Europeans in this country will be more
definite and more efficient than it is at present.

I have the honour to be,

SIR,

Your most obedient servant,

G. K.

Deputy Secretary to the Government of India.

Received



190

Registered

190

Subject.

Revision of the list of High Schools for Europeans :- Stating that the _____ cannot be ^{finally} considered until ^{the} question of the Curriculum is settled but that the Inspector's report is awaited.

ENCLOSURES.

No.

Spare copies

Re. No. 2276/08

Station. *Potacammund*

Dated the *8th May*

1908

From (Name) *The Honble Dr. A. G. Bourne F.R.S.,*

(Designation) *Director of Public Instruction.*

To The Secretary to the Government of Madras,
Educational Department.

Sir,

With reference to Memorandum No. 587-2
Edl, dated 23rd March 1908 in connection with the
revision of the list of High Schools for Europeans, I
have the honour to state that until question of the Curriculum
is settled it is impossible to say certainly which schools
are fitted to undertake it and which are not.

I called however for a report on the subject from
the Inspector of European and Training Schools.

of

35
Of the 10 High Schools for European boys in this
Presidency the status of one or two only is doubtful.

I have the honour to be,

Sir,

Your most Obedient Servant,

A. G. Bowring

Director of Public Instruction.

200
N.O. No. 101 of 26.8.07

27
I referred the preparation of Syllabuses
as required in U.O. under reference to
a Committee of four members who
met on the 5th August and apportioned
the work among themselves & settled
general principles & other preliminaries.
They are now engaged in framing
Syllabuses & have been recently
reminded by me & asked to submit
their work expeditiously. The need
for urgent treatment was impressed
on them when the Committee was
formed. I fear it will not be
possible to submit the schemes to
Govt. before the expiry of another
fortnight but will expedite matters
as much as possible.

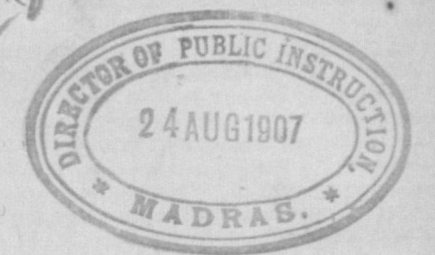
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[E. & L.]
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Cue 4 2085
Edl Educational DEPARTMENT.



For the Assistant Secretary

SUBMITTED that the Director of Public Instruction may be asked when a reply to the unofficial reference noted below * may be expected.

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21-8-07
21-8-07

Chl
22-8-7
ham

To
The S.P.9. No.

* U. O. No. 1423-1.D., DATED 19-7-1907.

Subject.

Letter from the Government of India on the subject of the curriculum for European schools.

REMINDERS ALREADY SENT.

..... 190 .
..... 190 .
..... 190 .

P.T.O.

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278

READ ALSO:—

ORDER.
WS.

No. 364, dated 13. 5. 1908

The revised Curricula & Syllabuses for European Schools, and for the Primary Scholarship and the Middle and High School and Scholarship Examinations for Europeans, Submitted by the Director of Public Instruction, are approved.

2. The Director is requested to revise the list of High Schools for Europeans, with reference to the revised Curricula and to include in the list no schools which

cf. paras of S. P. G. better
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13-5-08

30 36P
 which do not provide for the
 suitable instruction of pupils
 in a High School curriculum.
 The result of the action taken
 by him in this matter should
 be reported to Government.

50P
 11-5-08

Obs
 11-5-8.

DESPATCHED
 13 MAY 1908

9A

20 The D.P. 24