

Home (1919) Department.

Education

Ordinary SERIES.

G.O. No.

16007

DATED

27-12-19

INDEXED

[Despatch Abstract.]

Nature study and school gardening

Forwarding to the Director of Public Instruction
three copies of the syllabuses for ----- received from the
Government of Bombay

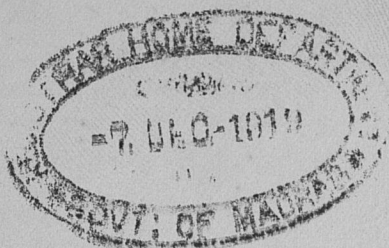
BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

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 the file to
 for the coming
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No. 4201

Educational Department.

Bombay Castle, 15th September 1919

5th December

From

G. A. Thomas, Esquire, I. C. S.,

Secretary to the Government of Bombay;

To

The Secretary to the Government of Madras,

Home (Education) Department.

Sir,

I am directed to forward herewith four copies of each of the Bombay Government Notifications nos. 4197, 4198 and 4199, dated the 15th September 1919 issued in connection with the syllabuses for "Nature study" and "School gardening" in primary schools recently approved by this Government. Four copies of the nature study and school gardening syllabus for Training Colleges are also enclosed.

I have the honour to be,

Sir,

Your most obedient servant,

Secretary to the Government of Bombay.

EDUCATIONAL DEPARTMENT.

Bombay Castle, 15th September 1919.

No. 4197.—The following syllabuses for "Nature Study" and "School Gardening" in primary schools have been approved by Government and are published for general information:—

I

NATURE STUDY SYLLABUS FOR PRIMARY SCHOOLS.

Infants.

Conversational lessons in field or garden on common plants and common animals.

Standard I.

(a) Examination of plants in the school garden or near by in order to satisfy pupils that they are alive and growing. Seeds to be sown in moist sand so that the progress of growth may be watched.

Examination of some half-dozen available plants and certain different parts, *e. g.*, root stem, leaves, flowers, fruits.

(b) Comparison and contrast between:—

(1) Buffalo and cow or bullock.

(2) Sheep and goat.

(3) Parrot and crow.

(c) The sky and what we see in it: sky, clouds, sun, moon and stars.

Rain-water: whence it comes, whither it goes, and its work.

Standard II.

(a) Observation and recognition of fifteen local plants, and their chief parts, *e. g.*, bajri, jowari, wheat, rice, sugarcane, maize, mango, guava, pomegranate, plantain, date, cocoanut, lemon; tur, gram, beans, peas, groundnuts; rose, jasmine, sunflower, gulmohur, marigold, tulsi; cucumber, melon, gourd.

(b) Observation of form and habits of five common animals, *e. g.*, duck, hen, sparrow, pigeon, horse, donkey, camel, snail.

(c) Observation of different positions of the sun by noting the directions of the shadow cast by a rod; telling the time by noting the position of the sun in the sky. Noting direction of wind.

Standard III.

(a) The root and its uses to the plant: distinguishing fibrous, tap, and bulbous roots.

The stem: different kinds, such as erect, creeping, climbing, and subterranean and their uses. Study of cross sections of stems with or without rings.

Leaves: children to be taught to point out differences distinguishing leaves collected by themselves.

(b) General habits and characteristics of birds that children know.

Classification of birds according to place of habitation, food, beak, and claws.

(c) Observation of the changes in the position and appearance of the moon from day to day.

Clouds: formation and kinds (heavy and light): effect of wind on clouds.

Rocks and soils: action of running water upon them.

Standard IV.

(a) Leaves in relation to light and water.

Parts of a flower and their uses.

Fruits succulent and dry; parts of a fruit.

Simple experiments to illustrate the conditions of germination.

(b) Life history of any insect kept under observation (*e. g.*, butterfly or silkworm) and of a frog.

A fish (when available)-how fitted to live in water, weight, shape, covering, temperature, movements.

(c) Recognition of the brightest constellations, or if desired, a few lunar mansions.

Action of water, heat, cold and wind on rocks and soils.

[Price—6p. or 1d.]

Standard V.

(a) 1. Pollination by wind, insects, *etc.*, 2. Fertilization. 3. Development. 4. Commonest forms of seed dispersal. 5. Germination.

Different habitats of plants.

Distinction between flowering and flowerless plants, a fern, a moss, and a mushroom being used as examples of the latter.

Nutrition of mango, loranthus, and mushroom.

(b) General study of bee or ant, fly or mosquito, beetle, and earthworm.

Observation (when permissible) of the structure of a hen's egg.

(c) Observation of heavenly bodies mentioned in the reader for this standard.

Formation of mist, dew, and hailstones.

Measurement of rainfall and temperature.

Observation of local rocks and soils.

II

SCHOOL GARDENING SYLLABUS FOR PRIMARY SCHOOLS.

Space and facilities for school gardening will differ widely. These instructions indicate the type of work expected where conditions are favourable. In less favourable conditions the teacher is expected to make the best of what is at his disposal. The initiative of pupils should be encouraged.

Infants.

Infants to bring very small pots or half cocoanut shells from home, fill these with earth and sow seeds and care for them. Collective work with teacher such as weeding, collecting stones, dead leaves, *etc.*, from the general school garden or class plots.

Standard I.

Use of the Khurpi (खुरपी) and practice in digging in soft soil in a class plot. Growing half-a-dozen plants and working generally under the direction of the teacher. As a rule not more than 15 pupils to work at a time.

Standard II.

Pupils to watch the teacher working in specimen plots 3' x 3' and afterwards two pupils to do the same work in the individual plot. As far as possible all plants needed for nature study course to be grown.

Standard III.

Collective teaching of the preparation of soil. Where possible batches of three boys to work together in plots 5' x 6' and grow plants needed for nature study—roots such as radish, carrots, and stems such as potato, ginger, turmeric, onions, sweet potato, leafy vegetables such as methi, alu, pokla and fruit vegetables such as chillies, brinjals, cucumber.

Standard IV.

Collective teaching on the preparation of shallow boxes or pots for flower seeds. Study of manures and manuring. Care of the ornamental part of the school garden, *e.g.*, borders, and hedges. Propagation of plants by cutting and by division of bulbs, transplanting of seedling and repotting of plants.

Standard V.

Preparation of the shady parts of the garden for ferns and moss: plots 5' x 6' for two pupils to grow bhendi, tamato, cucurbita, brinjals, ambadi, cotton, maize.

General part of the garden to contain as many fruit trees as convenient and needed for nature study.

Demonstration of budding and grafting. Study of garden pests. General laying out of the garden.

By order of His Excellency the Honourable the Governor in Council.

G. A. THOMAS,
Secretary to Government.

EDUCATIONAL DEPARTMENT.

Bombay Castle, 15th September 1919.

No. 4198.—The following additions and alterations in the standards of examination for Marathi, Gujarati, Kanarese, Urdu—^{Marathi}_{Kanarese} Gujarati and ^{Marathi}_{Kanarese} Gujarati—Urdu primary schools for boys sanctioned respectively in Government Notifications Nos. 627, dated the 8th March 1913, 2598, dated the 8th September 1913, 2314, dated the 6th August 1913, and 737, dated the 27th February 1919, are approved and published for general information. They will be brought into force from the beginning of the school year in 1920:—

Standard for Infant Classes.

Under the fourth head substitute the following:—

“Suitable instruction in infant classes may also include the following:—

(a) Nature study and school gardening as prescribed under Government Notification No. 4197, dated the 15th September 1919.

(b) Instruction on simple forms, colours, and very familiar objects, with simple drawing.

(c) Narration by the head teacher or a trained assistant of simple and interesting stories.

(d) Recitation and singing in unison of simple songs.

(e) Infant drill and exercises, and games.

(f) Some kindergarten occupations according to the convenience of the school.

N. B.—Counting, word-building, nature-study, school gardening, object lessons, drawing stories, songs, games, and occupations should, as far as possible, be connected with one another.”

Standard I.

Under the fourth head substitute the following:—

“Nature study and school gardening as prescribed. Six object lessons on familiar objects and natural phenomena (not included in the scheme for nature study), with simple drawing*. Narration of simple and interesting stories, requiring children to give them in their own words. Kindergarten occupations, drill, exercises, and games to be continued.”

N. B.—In the case of Standard I for Gujarati schools however omit the asterisk after “drawing” in the foregoing amendment and substitute in its place “(vide appendix C)”.

Standard II.

Under the fifth head substitute the following:—

“Nature study and school gardening as prescribed. Nine object lessons on familiar objects and natural phenomena (not included in the scheme for nature study) treated of in the reading book or taken from any suitable text-book, with simple drawing*.”

N. B.—In the case of Standard II for Gujarati schools however omit the asterisk after “drawing” in the foregoing amendment and substitute in its place “(vide appendix C)”.

Standard III.

Under the fifth head substitute the following:—

“Nature study and school gardening as prescribed. Twelve object lessons on objects and natural phenomena (not included in the scheme for nature study) treated of in the book read or taken from any suitable text-book, with simple drawing*.”

N. B.—In the case of Standard III for Gujarati schools however omit the asterisk after “drawing” in the foregoing amendment and substitute in its place “(vide appendix C)”.

Standard IV.

Under the fifth head substitute the following:—

“Nature study and school gardening as prescribed. Twelve object lessons on objects and natural phenomena (not included in the scheme for nature study) treated of in the reading book or taken from any suitable text-book, with simple drawing*.”

N. B.—In the case of Standard IV for Gujarati schools however omit the asterisk after “drawing” in the foregoing amendment and substitute in its place “(vide appendix C)”.

[Price—6p. or 1d.]

Standard V.

Under the fifth head substitute the following:—

"Nature study and school gardening as prescribed. Twelve object lessons in elementary science (excluding lessons in the scheme for nature study), with simple drawing*."

N. B.—In the case of Standard V for Gujarati schools however omit the asterisk after "drawing" in the foregoing amendment and substitute in its place "(vide appendix C)".

Standard VII.

Under the fifth head in the standards for Marathi, Gujarati and Kanarese schools only for "The Way to Health or" substitute "Hygiene and".

APPENDIX A.

Under Appendix A in all the sets of standards substitute the following for the first sentence:—

"At the desire of managers a graduated course in manual training or elementary science may be substituted for the nature study, school gardening, object lessons, and science prescribed under standards III to VII."

By order of His Excellency the Honourable the Governor in Council,

G. A. THOMAS,
Secretary to Government

EDUCATIONAL DEPARTMENT.

Bombay Castle, 15th September 1919.

No. 4199.—The following revised Appendix B to the syllabus of studies for Vernacular Boys' Schools in Sind prescribed under Government Notification No. 1863, dated the 26th June 1915, is approved and published for general information. It will be brought into force from the beginning of the school year in 1920:—

APPENDIX B.

Nature study and school gardening, object lessons, and lessons in elementary science taken from the departmental readers will be taught in selected local board schools according to the following scheme:—

Infant Class.

Instruction on simple forms, colours, and very familiar objects. Nature study and school gardening as prescribed under Government Notification No. 4197, dated the 15th September 1919.

Standard I.

Nature study and school gardening as prescribed, and six object lessons on familiar objects and natural phenomena, not included in the scheme for nature study.

Standard II.

Nature study and school gardening as prescribed, and nine lessons on objects (familiar objects and natural phenomena not included in the scheme for nature study) treated of in the Departmental Second Book, or from a suitable text-book.

Standard III.

Nature study and school gardening as prescribed, and twelve lessons on objects (natural phenomena not included in the scheme for nature study) treated of in the Departmental Third Book or from a suitable text-book.

Standard IV.

Nature study and school gardening as prescribed. Twelve lessons on objects (natural phenomena not included in the scheme for nature study) treated of in the Departmental Fourth Book or from a suitable text-book.

Standard V.

Nature study and school gardening as prescribed. Twelve lessons in elementary science (exclusive of such as will be dealt with in the scheme for nature study) as in the Departmental Fifth Book.

Standard VI.

Lessons in elementary science as in the Departmental Sixth Book.

Standard VII.

Lessons in elementary science as in the Departmental Seventh Book, together with lessons in Hygiene.

N. B.—The above course may be modified in municipal and aided schools with the sanction of the Educational Inspector in Sind.

By order of His Excellency the Honourable the Governor in Council,

G. A. THOMAS,
Secretary to Government.

II 7806

[Price—6p. or 1d.]

NATURE STUDY AND SCHOOL GARDENING SYLLABUS FOR TRAINING COLLEGES.

The instruction and practical work should be such as is required for illustration of the syllabus and for efficient training of teachers in the maintenance of school gardens, as required in the syllabus for primary schools.

First Year.

I Plant study :—

(a) Parts of plants and their uses.

Roots : various forms and functions.

Stems : various forms and functions.

Leaves, simple and compound : shape and venation of simple leaves and functions of leaves.

(b) Flowers : parts and functions.

Fertilization.

Development of fruit.

(c) Seeds : structure and germination.

II Animal study as required to teach primary school syllabus up to and including standard IV.

III Study of sky, sun, moon, stars, rain, rocks, soils, etc., as required to teach the primary school syllabus up to and including standard IV.

Second Year.

I Plant study :—

(a) Difference between monocotyledons and dicotyledons in root, stem, leaf, and flower.

(b) Seed dispersal.

(c) Observation of non-flowering plants.

(d) Study of plants with reference to their habitat.

(e) Principles of classification of plants.

(f) Study of a few families to which the following plants belong :—

Bean, cotton, mustard, sunflower, cucumber, brinjal, orange, palm, plantain, pomegranate, jasmine.

II Animal study as required to teach the primary school syllabus up to and including standard V.

III In addition to the first year's course, study of heavenly bodies, mist, dew, hailstones, measurement of rain-fall and temperature as required to teach the Nature Study syllabus for primary schools.

Note.—While attainment of exact and accurate knowledge by the student is essential, so that he may not lead his pupils astray in after-life, this must be regarded as groundwork only. The chief work of the nature study teacher in a Training College will be instruction in the methods to be followed in teaching the primary school syllabus and correlating it with other subjects. A special study of this syllabus with ample practical lessons will be required, and the study of the whole syllabus must be completed in two years.

[Price—6p. or 1d.]

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Forwarding to the D.P. 3 three copies of the syllabus
for — received from the Govt of Bombay

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C. No. 2848, From the Govt of Bombay No. 4201, dated 15-9-1919.
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No. 1600, dated 27.12.1919.

Three copies of the syllabus for 'Nature Study' + 'School gardening' ~~and~~ in primary schools + Training Colleges + ~~other~~ connected papers received from the Govt of Bombay are forwarded to the D.P.I.

To The D.P.I. ^{Decd until 11.12.19.}
 (with three copies ^{one} of the syllabus ^{1/20} & papers). ^{1/20}
 Letter to No 1601827.12.19
 The Secretary to the
 Govt of Bombay
 Educational Dept
 Sir,
 I am directed to acknowledge

with thanks, the receipt of
copies of syllabuses for 'Nature
Study' and 'School gardening'
in primary schools & training
Colleges & ~~other~~ connected
papers forwarded with
your letter No-420, dated
15th September 1919.

I have &c.

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