

(2) *Solid Geometry*.—Projection of a solid upon the planes of delineation; projection of points, lines, and surfaces; projection of cubes, prisms, and pyramids; projection of circular surfaces, cones, cylinders, and spheres; simple sections made by horizontal and vertical planes parallel to the H.P. and the V.P.

(3) *Dimensioned Sketching*.—Freehand sketches of all plans, elevations, and sections of models, with the necessary dimensions shown to fully explain the model. The models used will be simple objects in wood or metal, such as nuts and bolts, gas and water taps, pulley wheels, etc.

(4) *Development*.—The aim of the course is to teach the student the practical application of geometry to constructive industry, and to aid him in acquiring a sound knowledge of mensuration, mechanical drawing, and solid geometry.

Various developments of the following:—The cube; the right prism with triangular, square, octagonal, and other bases. The right pyramid and frusta with bases as before mentioned. Right cylinder and right cones with frusta. Combinations of the foregoing as applied to industrial problems.

#### FREE DRAWING.

(1) *Object Drawing*.—Simple objects or models placed on horizontal surfaces situated at various levels, either above or below the level of the eye. Circular models, such as the cylinder and cone, flower pot, bucket, and objects of similar shape, are to be drawn in oblique and horizontal positions as well as in upright ones.

(2) *Freehand Drawing*.—(a) Simple examples of ornament based on plant forms or conventional ornaments are to be studied and analysed. The analysis is shown by making two smaller drawings in which the lines are numbered in order of their importance. This work is in addition to the larger drawing. (b) Simple studies of plant form from nature. (c) Lettering—block and Roman—upper and lower case; Arabic numerals.

#### CLAY MODELLING.

Modelling in relief from easy casts of ornaments and plant forms; simple shells; plant and other forms from Nature.

### SHEETMETAL WORK.

#### BENCHWORK.

- |                    |                    |
|--------------------|--------------------|
| 1. Match-box slide | 10. Circular vase  |
| 2. Pin tray        | 11. Sugar basin    |
| 3. Pentagonal tray | 12. Hot water jug  |
| 4. Circular scoop  | 13. Small kettle   |
| 5. Scone cutter    | 14. Jewel case     |
| 6. Match holder    | 15. Small bucket   |
| 7. Pannikin        | 16. Serviette ring |
| 8. Butter dish     | 17. Jardiniere     |
| 9. Button box      |                    |

#### Short lessons on:—

1. Materials, tools, and appliances.
2. Solders and soldering.
3. Fluxes.
4. Joints used in sheetmetal work.

### WOODWORK.

#### BENCHWORK.

- |                          |                           |
|--------------------------|---------------------------|
| 1. Plant support         | 9. Towel roller           |
| 2. Plant label           | 10. Tea-cloth rail        |
| 3. Flowerpot stand       | 11. Foot stool            |
| 4. Inkstand              | 12. Book rest             |
| 5. Octagonal bread board | 13. Clock case            |
| 6. Rolling-pin           | 14. Tray                  |
| 7. Bracket               | 15. Fire screen           |
| 8. Salt box              | 16. Boot-cleaning cabinet |

Students may use their own designs for not more than three models each per annum, subject to the Instructor's approval.

### TIMBER AND TOOLS.

#### Short lectures on:—

- (a) (1) The sources of timber.
- (2) Growth, felling, converting, and seasoning.
- (3) Defects of timber.
- (4) Preservation.
- (5) Description of timbers used locally.
- (6) Stock sizes.
- (7) Trade measurements.
- (8) Trade terms.
- (b) The various kinds of tools; how to use them and keep them in order.

### Second Year.

#### 1. LITERATURE.

#### ENGLISH.

The study of such books as shall be prescribed by the Superintendent of Technical Education.

(a) *One of Shakespeare's Plays*.—The students should know the plot well, and should make a careful study of the characters. An accurate knowledge of the critical notes will not be expected from students at this stage, but notes which are of special interest should be dealt with and learnt.

(b) *Novel by a Standard Author*.—If the novel be short (e.g., Stevenson's "Kidnapped") it may be read in class, but if long it must be read at home and discussed in class. The novel is not to be "torn to tatters" in a critical dissection, the analysis and discussion to be on general and appreciative lines rather than a detailed and destructive criticism.

(c) *Poetry*.—As in the First Year, the poems must be enjoyed, but now they may be more closely examined. Pupils should be encouraged to learn passages which appeal to them. If time permits, brief accounts of the poets' lives may be read, and short notes given. This should follow the treatment of the poems, and not precede it. Students "must be able to make stresses and to display an understanding of ordinary metrical forms." At least 150 lines of poetry should be memorized.

N.B.—The above books and extracts should be studied in relation not only to their content but to their distinctive qualities of style. Answers should be illustrated by apposite quotation and allusion.

(d) *Word Study*.—Further instruction will be given in the formation of words. The derivations of a few interesting words will be given to illustrate the manner in which our language has been formed.

#### 2. GRAMMAR.

As for the First Year, and, in addition:—Irregular and defective verbs; the subjunctive mood; uses of forms ("A New English Grammar," E. H. Sonnenschein). For general remarks on the teaching of this part of the course, see the notes under "Grammar" in the first year syllabus.

#### 3. COMPOSITION.

As for the First Year, and, in addition:—The acquisition of ideas. The vocabulary. Condensing (précis writing). Idiomatic language. A fuller treatment of figurative language. Letter writing. Description and narration. Essays should be given regularly. Teachers will find the abridged edition of Fowler's "King's English" exceedingly useful on general matters of composition and the use of words.

#### Text Books Recommended—

- "A New English Grammar," E. A. Sonnenschein (Clar. Pr.).  
 "The King's English (abridged), H. W. and F. G. Fowler (Clar. Pr.).  
 "Arnold's Junior English Composition," E. J. Kenny.

Literature books as prescribed from time to time by the Superintendent of Technical Education.

\*For the use of the teacher only.