

HONGKONG.REPORT ON THE TEACHING OF HYGIENE IN THE
SCHOOLS OF HONGKONG.

*Laid before the Legislative Council by Command of
His Excellency the Governor.*

Towards the end of the year 1903, a Circular was received from the Secretary of State for the Colonies, forwarding a copy of a Despatch from the Governor of Lagos on the subject of teaching Hygiene in schools. It was suggested in the Circular that "skilfully arranged lessons on the natural history of the causes of the most important tropical diseases might be made very attractive to children, and that such teaching would be of practical utility in the future." The Secretary of State desired to be informed whether any teaching of this nature was at that time being given in the schools of Hongkong, or whether it could profitably be given.

2. Hygiene had not at that time been taught in the schools of the Colony, except here and there in a sporadic and disconnected way, under the names of Domestic Science and Physiology. To advise how the subject might be conveniently introduced, Mr. MAY, the Officer Administering the Government, appointed a Committee, consisting of the Principal Civil Medical Officer, the Headmaster of Queen's College and the Inspector of Schools, to draw up a scheme for the Colony. Their Report, sent in in February, 1904, recommended that—

- (a) the subject should be made compulsory in the Anglo-Chinese Schools of the Colony ;
- (b) it should be taught orally in the lower Standards, and by means of simple text books in the higher ;
- (c) the Medical Officer of Health should be requested to draw up a Syllabus.

The Syllabus suggested in (c.) as first drawn up required considerable modification, and finally His Excellency the Governor outlined a completer Course of Instruction, which was embodied in the Course of Hygiene now used in the Schools, compiled at the close of 1904 by Dr. W. W. PEARSE, Medical Officer of Health.

3. His Excellency decided that the subject, with this Course as a basis, should be made compulsory in all Government and Grant Schools and the Grant Code was amended conformably early in March, 1905. At the suggestion of Dr. WRIGHT and myself, it was further decided that the Advanced Course should be taught to Standards VII and VI, and the Elementary Course to Standards V, IV and III that the time given to the subject should be 2 weekly periods of $\frac{3}{4}$ hour each and that one of these should be occupied with reading the Course, and the other with the subject treated as an object lesson.

4. It having been decided by His Excellency that progress should be tested by an examination, one was accordingly held at the beginning of December last, as described below. The results were the fruit of less than 8 months' work, broken by the Summer holidays. Delay was also caused by the necessity of procuring the books of reference for the Advanced Course from Home. One or two Grant Schools elected to defer beginning the subject till after the close of their school-year in June. But on the whole, work was started without needless delay; nor did the teachers find much difficulty in grasping the proper way of imparting instruction. A few suggestions are made at the end of this Report. The number of pupils under instruction is returned as 1,524, of whom 307 or 20 per cent., took the Advanced Course. Details are given in Appendix A.

II.

5. His Excellency the Governor having offered prizes of \$100, \$50 and \$25 for the 3 best papers done by pupils studying the Advanced Course, and a Shield with 2 prizes of \$15 and \$10 for the school which should send in the best Team of 10 competitors from the Standards taking the Elementary Course, these rewards

were given on the results of the before-mentioned examination, which was undertaken by the Principal Civil Medical Officer and the Medical Officer of Health. The papers set are given in Appendix *B*. Appendix *C* shews the arrangements made for the conduct of the examination: these were left to me. Some suggestions as to how the conditions of the examination might be modified by the present experience, are given at the end of this Report.

6. The examination for the *Advanced Course* was held for the boys at Queen's College, and for the girls at the Belilios Public School. The questions were, with one exception, the same for boys and girls. Seven boys' schools and five girls' schools competed, the total number of candidates being 79. The first prize fell to N. J. EZRA of St. Joseph's; the second to W. DRUDE of the Diocesan School and Orphanage; the third to ENRIQUETA FELICES of the Italian Convent and to HUNG IU-CHI of Queen's College, bracketed equal.

7. Without wishing to detract in any way from the credit due to the successful schools, it will be worth while to regard the results rather closely, in order to see as clearly as possible how far each of the competing schools has succeeded in reaching the standard that might reasonably be expected of it. For this purpose I have analysed the marks, as given in Appendix *D*, and have endeavoured to shew that allowances should be made for immaturity of years in the competitors, and for scanty numbers in the Classes from which the competitors were chosen. I have disregarded in my analysis the work done by all but the 3 best candidates from each school, partly because some schools sent in only 3 candidates, but also because others sent in many for the educational advantage which those candidates would derive from the examination, and without any regard to the question whether they were not thereby pulling down the school's average of marks. Thus marked, and paying heed for the moment to nothing but the actual result, it will be seen that five schools—Italian Convent, Queen's College, Diocesan Boys', St. Joseph's, and Ellis Kadoorie School—obtained 70 or more marks per cent., a result which, (taking into consideration the short time during which the subject has been studied) cannot be regarded as otherwise than very satisfactory. Next comes a group of 5 schools—Belilios, French Convent and Kowloon School bracketed, Diocesan Girls' and Saiyingpun—with rather more than half marks, and very little to choose between them. Making the same allowances as for the first five, these on their marks must be considered to have done well. Last come the Victoria School and Cathedral School, whose papers earned exceedingly low marks: of these the latter is not a strong school, (see my last two Annual Reports); the failure of the former is considered in Appendix *E*.

8. If the figures in Appendix *D* are now further considered, it will be seen that there are two other factors which, while they cannot detract from the credit won by results, seem to reveal cases where the mere figures can scarcely be considered to have plumbed the efforts of teachers and pupils. Eliminating Saiyingpun, which was unavoidably late in beginning the *Advanced Course*, the schools in the second category, while they scored about 18 per cent. fewer marks than the first five schools, sent in competitors who were younger by $1\frac{1}{2}$ years, and were selected from 19 pupils instead of from 254. It may be argued that the Chinese competitors, if their age favours them, are hampered by their difficulty in expressing their ideas in English; and that the masters of big Classes, if they have more material to choose from, have also to give their attention to greater numbers at the same time. To say that victory must go with the big battalions because it has done so on this occasion, would be unreasonable. I have, however, thought it worth while to draw attention to these points, in order that when, another year, the terms of the competition are considered, the facts may be accessible. There is nothing to shew that the girls are at a disadvantage as compared with the boys.

9. Reference to Appendix *B* shews that the questions set on the *Advanced Course* were easy; but this was only fair, as the time for preparation was so short. Appendix *D* also gives a Table shewing the sum of the marks gained by the three best competitors from each school on each question. Attention is also drawn to the best and worst answers. It is hoped that this Table will be of use to teachers, shewing them where their weak points lie. The noticeable unevenness in the figures given for different questions in the same school can best be accounted for

on the hypothesis, that the course was too long for the time of preparation, and while what was studied was studied to good effect, much has been treated in an introductory fashion only. I have divided the marks under the headings, Good, Fair and Bad, according as they exceeded 60, or fell below 40, or lay between 60 and 40 per cent. Taking the gross result, one question was well answered on this calculation, and the rest were fair.

10. The examination for the *Elementary Course* took the form of a competition between Teams of 10 members drawn from the lower Standards, the Shield (which is to be held for one year) going to the Team earning the greatest aggregate number of marks. And the 2 prizes were in the same way assigned to the 2 best competitors of the winning Team, and not necessarily to the 2 best of all; the object being to encourage a high average standard of work in the schools. Ten Teams competed, other schools were unable to send in large enough Teams to make a fair comparison possible. The papers were worked, under proper supervision, at the competing schools. The Shield went to Queen's College, and the prizes to R. EASTLAKE and to IP U-PAK.

11. In Appendix *E* is given an analysis of the marks. Every school obtained half marks and over, except Yaumati with 47 per cent. The marking does not strike me as lenient, and the result is very satisfactory. In this examination the performances of the schools seem to bear a less mechanical relation to the circumstances of age and numerical strength. The low age of the field from which the Team of St. Joseph's was drawn, singles it out for commendation, in spite of the size of the field. But perhaps of those that failed to command success the Belilios Public School deserved it best. That Team, youngest and chosen from the smallest field, took the fifth place. The Italian Convent, Wantsai and the Diocesan Girls' School also did well. The Diocesan School for Boys and Yaumati took lower places than was to have been expected; and still more so the Ellis Kadoorie School.

12. Appendix *E* also shews the average number of marks obtained by each Team for each question in the examination. Of the 7 questions, 2 may be considered to have been well done considering all things; the rest were fairly done.

III.

13. There is no doubt in my mind that a really practical knowledge of the rudiments of Hygiene has been acquired. That was my impression before the examination, the results of which only serve to confirm it. The best papers were full and accurate: the worst contained singularly little of the meaningless verbiage, which examiners learn to look for at the bottom of any considerable number of papers. On the contrary, the worst papers, with few exceptions, gave me the idea, that the writers were either struggling to express a correct idea, though language failed them; or else they were in the position of one, who has fully comprehended an argument, but finds that he is unable to recollect all the stages thereof, when he wishes to reproduce it. Many faults also were faults of omission rather than of commission. As an example, I will quote one of the worst replies of the worst boy in the worst Team to the question on the uses of cooking. He says:—"Because food has millions of germs in it, and they make us have many diseases, so that we cook our food to destroy all germs and we can escape from diseases."

14. The papers were very fair, if I may be allowed to say so. I cannot help regretting the absence of a question on the sources of malaria. Thanks to the action of the Government, that disease is disappearing from Hongkong: but its prophylaxis will not cease to be of vital importance to Chinese boys, as long as they continue to return for their holidays to fever-ridden homes.

15. Turning to the methods employed in teaching the subject, I do not think all the teachers taught as much by experiments as they might have done. A few seem to be unable to dissociate the word from the ideas of stoppered bottles and small explosions. A little ingenuity is indeed required. I have been asked with rhetorical effect, whether I proposed to shew Classes by experiment the

effects of an excess of Carbon Dioxide. And yet by breathing through a straw into lime water (a preparation which no family is without) the ravages of this gas may be illustrated in the most startling manner. I wonder how many of the pupils who discoursed on damp courses, had been taken to the nearest house under construction, to see one.

16. The Elementary Course is not long, and few children leave English and Anglo-Chinese Schools before reaching the Fourth Standard. If they do, I do not think they will have been able to assimilate much of the teaching in so short a time. I am therefore of opinion that instruction in Hygiene might be deferred till Standard IV. The Handbook is really too hard for Standard III to use as a Reader.

17. Another year, something should be done, at any rate in the examination on the Advanced Course, to put the small schools on a less disadvantageous footing. It would be only fair if Queen's College treated the Divisions of her Classes as separate units; they number more pupils than the Standards of the other schools. In the Team examination the College had at its disposal no less than 12 Divisions, and could make up a Team out of the top boys, and still have 2 in reserve.

IV.

18. In appendix G is given an extract from the Annual Report of the Headmaster of Queen's College, in which he deals with the teaching of this subject and the results attained at the College during the year.

EDWARD A. IRVING,
Inspector of Schools.

January 31st, 1906.

Appendix A.

NUMBERS INSTRUCTED IN HYGIENE IN 1905.

<i>School.</i>	<i>Standards III to V.</i>	<i>Standards VI & VII.</i>	<i>Total.</i>
Queen's College,	550	150	700
St. Joseph's,	123	35	158
Diocesan Boys',	92	31	123
Italian Convent,	69	19	88
Ellis Kadoorie,	63	23	86
Wantsai,	56	—	56
Cathedral School,	42	5	47
Yaumati,	42	—	42
Diocesan Girls',	32	3	35
Belilios School,	21	3	24
Victoria School,	8	13	21
Kowloon School,	4	7	11
French Convent,	13	6	19
Saiyingpun,	10	8	18
St. Mary's,	17	4	21
St. Stephen's,	61	—	61
Victoria Grant School, .	6	—	6
Fairlea,	8	—	8
Total,	<u>1,217</u>	<u>307</u>	<u>1,524</u>

Note.—These are the numbers who have received instruction during the year. They were not necessarily all under instruction at the time of the examination. The last 4 schools did not compete.

Appendix B.

EXAMINATION PAPERS.

December, 1905.

I.—ADVANCED COURSE FOR BOYS.

(Time allowed :—Two hours and a half.)

1. What is meant by saying that .6 per 1,000 volumes of CO₂ in the air is the limit of impurity permissible in the air of dwelling rooms ; and how is this limit arrived at ?
2. Mention the different kinds of domestic filters you know, and explain why some of them are really useless or even dangerous to health.
3. How are food substances classified ? Give examples of each class.
What quantities approximately of each class of food substances are necessary daily for a man doing moderately hard work ?
4. How does the value of clothing vary with its material, thickness and colour ?
5. What is a damp course ? What means can be adopted to keep basement rooms dry ?
6. What is the best method of dealing with nightsoil and urine—
 - (1) In the country ?
 - (2) In a city ?
7. What is meant by the incubation period of an infectious disease ; and of what value is the knowledge of the incubation periods of different diseases in preventing their spread ?

II.—ADVANCED COURSE FOR GIRLS.

The Girls' paper was the same as the Boys', except that for question 6 the following was substituted :—

Explain the importance of training Nullahs and natural watercourses near inhabited houses in a tropical country.

III.—ELEMENTARY COURSE FOR BOYS AND GIRLS.

(Time allowed :—Two hours.)

1. What amount of fresh air is necessary for a man to breathe every hour ; and what will happen to the air of a room in which people are sleeping all night, if the windows and doors are kept shut ?
2. What would you do to prevent a village well from being made foul by dirty water getting into it ?
3. Why do we cook our food before we eat it ?
4. Why is the clothing padded with cotton wool, which is largely used by the Chinese in winter, not a healthy kind of clothing ?
5. What would you recommend to be done to a kitchen in a Chinese tenement house, so as to make it as sanitary as possible ?
6. What is the proper thing for each householder in Hongkong to do with the different waste matters from his house every day ?
7. What is the danger in the habit of spitting anywhere over the floors of houses ?

Appendix C.

DIRECTIONS ISSUED IN CONNECTION WITH THE EXAMINATIONS.

CIRCULAR.

To Managers of English Grant Schools.

His Excellency the Governor is very anxious to encourage a knowledge of Hygiene in the English Schools of the Colony. He has therefore had printed the accompanying work, which he wishes to make a compulsory subject in Grant Schools. Section 26 Note (1) of the Code will shortly be amended accordingly.

The book is divided into two Courses—Advanced and Elementary. The Elementary Course should be taken by Standard III, IV and V, and the Advanced Course by Standards VI and VII. The lessons can conveniently be taken as reading lessons or as object lessons, and it is desired that each lesson should be taken first as the one and then as the other. When taken as object lessons, they should be illustrated by simple apparatus. Two lessons a week of three-quarters of an hour each should be ample.

The books will shortly be on sale at cost price (about 25 cents), and I shall be much obliged if you will let me know as soon as possible how many copies are likely to be used this year in your schools. Each scholar in Standards III and above should have a copy.

With a view to stimulating interest in the subject, His Excellency has kindly offered 3 prizes of \$100, \$50 and \$30, to be competed for among the scholars (boys and girls) of the Colony, at an annual examination to be held in December on the Advanced Course. Managers should forward the names of candidates to me not later than 1st November, 1905.

EDWARD A. IRVING,
Inspector of Schools.

CIRCULAR.

To Managers of Government and Grant English and Anglo-Chinese Schools.

With reference to my former Circular on the examinations in Hygiene (attached), I have now much pleasure in announcing that His Excellency the Governor has supplemented his former generous offer by undertaking to give further encouragement to the pupils in the lower Standards and Classes, in the following manner:—

- I. A Shield is offered to the School which sends in the best papers done by a team of scholars.
- II. Each team must consist of 5 scholars from Standard IV, and 5 from Standard V (or from the corresponding Classes). When the Standards or Classes are very small, it is in the discretion of the Inspector, on the application of the Headmaster or Manager, to allow a smaller team to compete.
- III. The Shield will be given to the School whose team obtains the greatest aggregate number of marks, allowance being made for teams of less than 10 under II above.
- IV. One prize of \$15 will be given to the best paper done by a Standard V competitor, and one of \$10 for the best paper done by a Standard IV competitor, *in the winning team.*
- V. The prizes will be the absolute property of the winners; but the Shield will be held by the successful School for one year only. The name of the School will be engraven upon it.
- VI. The examination will be based upon the Preliminary Course in the Government Handbook upon Hygiene, and no questions will be set which do not arise naturally out of the text.

- VII. The examinations will be held early in December at the competing Schools on the same day.
- VIII. The following rules should be carefully observed: a breach thereof will disqualify the School concerned:—
- (a.) Competitors may not write their names nor the name of their School on their papers.
 - (b.) On completion of the time prescribed, the Headmaster will collect the papers and write "A" and "B" at the head of the papers done by Standard IV and Standard V respectively, and also head each paper with a distinguishing motto.
 - (c.) The papers shall then be sent to the Inspector in a sealed envelope without a covering letter or comments of any kind.
 - (d.) After having examined the papers and selected the winning team, the Inspector will ask the competing Schools to inform him as to their mottoes. Thus he will not himself know the name of the successful School until the correction of the papers has been completed.
 - (e.) Finally the Headmaster of the winning team will be required to give a written assurance that the work was done within the prescribed time, and that all precautions were taken to prevent unfairness.
- IX. All schools under the Inspectorate will be expected to take the papers, but those only will be eligible to compete for the Shield and prizes, as well as for the prizes offered in the former Circular, who shall have notified their intention of doing so to the Inspector on or before November 1st.

EDWARD A. IRVING,
Inspector of Schools.

Hongkong, 7th October, 1905.

CIRCULAR.

To Managers of Government and Grant English and Anglo-Chinese Schools.

Referring to my former Circular, it has been pointed out that under the present rules boys in Standard III have no chance of competing. With the consent of His Excellency the Governor, Rule II of my Circular of 7th October is amended to read as follows:—

"II.—Each team must consist of 10 scholars, of whom not more than 5 shall be from Standard V, and the rest from Standards IV or III, or from both. Where &c."

Rule IV will in consequence also be amended, and will now read:—

"IV.—One prize of \$15 will be given for the best paper *in the winning team*, and one prize of \$10 for the best paper done by a boy in Standards III or IV *in the winning team*."

EDWARD A. IRVING,
Inspector of Schools.

Hongkong, 3rd November, 1905.

Directions to the Head Masters for the Conduct of the Examinations.

ADVANCED COURSE.

The above examination will be held on the morning of Tuesday, 5th December, at 10 A.M.

Boy Candidates will be examined at Queen's College; Girl Candidates will be examined at the Belilios Public School.

Candidates should be in their places by 9.45.

Stationery will be provided.

ELEMENTARY COURSE.

I.—Open this envelope and distribute the enclosed papers on Tuesday, the 5th December, 1905, at 10 a.m. precisely.

II.—Warn competitors that they should not write their names nor their Standards nor the name of their school at the head of their papers.

III.—Be present throughout the whole examination, and take every precaution to prevent unfairness.

IV.—At 11.45 a.m., warn competitors that there are only five more minutes. At noon precisely, collect the papers.

V.—Number the papers from 1 to 10. Keep a list of the names of the competitors on a separate list, numbered correspondingly.

[N.B.—This second list is only to facilitate future reference, and is NOT to be sent to the Inspector of Schools.]

VI.—At the head of each competitor's papers write the distinguishing motto of the school.

[N.B.—There should be the same motto for all the 10 competitors; and NOT a separate motto for each one.]

VII.—Mark the papers done by Standard IV (or III) with an "A", and those done by Standard V with a "B".

VIII.—Finally send the papers to the Inspector of Schools, in a sealed envelope, without a covering letter or comments of any kind.

Appendix D.

RESULTS OF EXAMINATION, DECEMBER 1905.

ADVANCED COURSE.

SCHOOL.	SUM OF MARKS OF 3 BEST CANDIDATES.							Total. Max. 105.	Average age of Candi- dates.	Field of Selec- tion.	REMARKS.
	Max. 15.										
QUESTION	I.	II.	III.	IV.	V.	VI.	VII.				
Italian Convent,...	10	10	15	12	7	15	13	82	16	19	Won 3rd prize.
Queen's College,...	10	11	14	10	12	13	12	82	18	150	Won 3rd prize.
Diocesan Boys', ...	10	11	14	11	10	11	14	81	15	31	Won 2nd prize.
St. Joseph's,	10	9	13	11	6½	10½	13	73	14	35	Won 1st prize.
Ellis Kadoorie, ...	10	5	15	7	11½	13	12	73	17	19	...
Belilios,	5	8	13	13	12	5	5	61	15	3	...
Kowloon,	6	6	15	12	4	6	10	59	14	7	...
French Convent,...	6	7	12	10	5	8	11	59	15	6	...
Diocesan Girls', ...	6	7	11	5	8	12	9	58	14	3	...
Saiyingpun,.....	7	7	8	8	8	8	9	55	17	8	...
Victoria,	2	4	3	3	3	5	1	21	12	13	...
Cathedral,	0	1	4	6	1½	4½	0	17	...	5	...
AVERAGE MARK (OUT OF 15),	6.8	7.2	11.4	9	7.3	9.2	9.1	8.6

Not.—The figures in red are over 60 per cent. of full marks; those in black type under 40 per cent.

Appendix E.

RESULTS OF EXAMINATION, DECEMBER 1905.

ELEMENTARY COURSE.

SCHOOL.	SUM OF MARKS OF CANDIDATES.							Total. Max. 350.	Average age of Candi- dates.	Field of Selec- tion.	REMARKS.
	Max. 50.										
QUESTION	I.	II.	III.	IV.	V.	VI.	VII.				
Queen's College, ...	28	37	48	30	41	29	30	243	17.	550	Won Shield.
St. Joseph's,	29	36	48	37	28	16	33	227	12	125	...
Italian Convent, ...	29	28	35	37	32	30	33	224	14	69	...
Wantsai,	36	30	35	32	30	32	23	218	16	56	...
Bellios,	30	31	45	23	28	23	34	214	12	21	...
Diocesan Girls', ...	33	26	30	30	24	31	33	207	13	32	...
Diocesan Boys', ...	28	29	25	25	27	27	33	194	13	92	...
Ellis Kadoorie, ...	32	32	34	25	19	12	34	188	17	63	...
Cathedra',	18	23	36	17	20	14	18	146	?	42	Only 8 in Team.
Yaumati,	27	29	29	22	20	17	24	168	15	42	...
AVERAGE MARK (PER CENT.), ..	59	61	74	57	55	47	60	59

Note—The figures in red are over 60 per cent. of full marks ; those in **black type** under 40 per cent.

Appendix F.

Remarks on Examination of Children from Victoria School.

The failure of the Victoria School in the examination on the Advanced Course seems to call for explanation. The Headmaster points out—

(a.) that the subject was only begun in the middle of the Autumn Term, as there were not sufficient pupils capable of receiving instruction before then ;

(b.) that the average age of the pupils is only 12, and that they are not mentally fit for the study of the Advanced Course ;

(c.) that they were only entered under pressure from myself.

With regard to the last point, it is true that when I learned that there were not enough pupils to form a Team, I requested Mr. WILLIAMS to send them in for the Advanced Course, rather than that a Government School should be altogether unrepresented at the examinations.

Appendix G.

Extract from the Annual Report on Queen's College by the Headmaster.

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10. *Hygiene.*—By Circular in 1904 the Secretary of State urged on the Crown Colonies the importance of teaching this subject. The Governor of Hong-kong at once made Hygiene a compulsory part of the school curriculum, and to stimulate the necessary interest until the novelty of the subject should have worn off, His Excellency provided several prizes, which for value compare rather with scholarships. I am pleased to report that HUNG IU-CHI, a genuine Queen's College product, was bracketed third in the Schools' competition in the Advanced Course, while by the success of our Team of ten boys in the Elementary Course, the name of Queen's College will head the list inscribed on the Shield. ROBERT EASTLAKE of III A. and IP U-PAK of IV B. were selected by the Examiners for prizes as

having obtained the highest marks in their respective classes. In the Spring of the year there were in Queen's College over 700 boys receiving instruction on Hygiene, but this number dwindled through boys leaving school, until there remained for the Annual Examination 606, of whom 386 or 64 per cent. passed. The result is better exhibited in tabular form:—

Class	I.	45	boys	examined,	37	or	82%	passed,	I. A.	94%
	II.	75	"	"	59	"	79	"	II. A.	92%
	III.	127	"	"	93	"	73	"	III. A.	91%
	IV.	170	"	"	100	"	58	"	IV. A.	79%
	V.	189	"	"	97	"	54	"	V. A.	70%

It is thus evident that all the English Masters, who alone teach this subject, have entered with spirit into the teaching of Hygiene, and I may add that in the College examination the boys themselves exhibited in their answers an amount of interest that quite surprised me. Since a first year's work can produce such satisfactory results, we are justified in supposing that in another three years after a progressive course of education in this subject in the Third and Second Classes, the boys in the First Class may really acquire Advanced knowledge in Hygiene.