THE UPPER SECONDARY SCHOOL CURRICULUM
(PART I)

GENERAL PRINCIPLES

Das Lehrprogramm für die Sekundarstufe II [10.-13. Klasse]

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CONTENTS

FOREWORD

THE UPPER SECONDARY SCHOOL CURRICULUM

The upper secondary school curriculum, which is intended to cover the whole spectrum of instruction covered by the Act Concerning Upper Secondary Education, must, of necessity, consist of a number of volumes. These volumes will be supplemented and revised as and when it becomes possible to offer new fields of study, and as process is made on the pedagogical front.

This volume (no. 1 in the series) contains a general introduction. The material for this section is based on the work of the National Council for Innovation in Education, who published a pamphlet in September 1973 entitled Curriculum for the Senior High School, Part I: General Section. This pamphlet was sent to all schools and interested bodies for their comments. The principal ideas contained in the pamphlet and the comments which came in were considered by the Interim Council for Upper Secondary Education and the Ministry of Church and Education in White Paper No. 44 (1974-75) concerning further education. They were presented in the National Assembly in Bill No. 395 (1974-75) and in the debate of 5 June 1975, which is reported in Parliamentary Proceedings No. 60 ff. This is the background to the present edition, which was prepared in December 1975[x] after consultation with the Interim Council for Upper Secondary Education.

This general section of the Curriculum establishes guiding principles for the development of upper secondary education, and outlines a programme which is to be the working basis for the years ahead. To what extent these intentions will be fulfilled in schools at any given time will depend on

[x] In certain respects the English edition was brought up to date in November 1978.

a number of factors: what resources may be mobilized; locally varying conditions; and other factors which will constitute the framework within which work must progress.

Subject combinations for the different courses in the upper secondary school may consist of three subject groups:

1. A common core of general subject for all pupils
2. Special areas of study
3. Optional subjects

The upper secondary school curriculum consists of four parts:

1. General section

In addition to a closer interpretation and elucidation of the statement of principles contained in the Act Concerning Upper Secondary Education (§ 2) this section contains a general description of the school system, the content and working methods of the schools concerned.

2. Syllabuses for general subjects

This section contains the core of general subjects common to all pupils in the 1-year and 2-year foundation courses for all areas of study. Where it has been considered necessary, syllabuses differ for the different areas of study. This volume also contains a number of syllabuses for advanced courses (third year). These will be used primarily in the General Subjects area of study.

3. Syllabuses for special areas of study

Section 3 will consist of individual brochures or volumes for each special area of study. For each linje of study included under the general heading

"Technical and Industrial Subjects" special brochures will be published. Initially, section 3 will consist of syllabuses for the following areas of study:

3A. General Subjects (mainly theoretical).
3B. Handicrafts and Aesthetic Subjects.
3D. Commercial and Clerical Subjects.
3E. Home Economics and Catering.
3F. Technical and Industrial Subjects.
3G. Physical Education.

In addition to the areas of study mentioned above, the upper secondary school will also offer areas of study in Fisheries and Maritime Subjects. The Ministry of Church and Education intends to present a White Paper in the National Assembly on maritime and technical education. Until such time as this has been debated in the House and new syllabuses finalised, maritime and technical schools will continue to use present syllabuses. Education in the Health and Social Services sector is also being considered in the same way.

4. Syllabuses for optional subjects

A number of syllabuses contained in this curriculum are based on experimental plans used in the Reform-gymnas (new and reformed senior high school) from 1968, and the 2-year combined foundation course from 1969. With a few exceptions, this applies to the syllabuses contained in sections 2, 3A and 4. The remaining syllabuses are based on those which have been in use for varying periods of time in different vocational schools. Some of these syllabuses have been revised, often very considerably, on the basis of experience with earlier versions.

The development of these syllabuses continued until Autumn 1974, partly under the auspices of the National Council for Innovation in Education, partly under the auspices of the previous specialist councils for the various types of upper secondary education. As far as a number of vocational subjects are concerned, the National Council for Innovation in Education and the council for the type of school in question co-operated in the preparation of syllabuses. In the course of the process of drafting, the syllabuses, including section 1, have been circulated in the usual manner to schools, county education authorities, teachers' organizations and other interested parties, and their comments have been elicited. The Interim Council for Further Education have been responsible for subsequent work on the curriculum.

More detailed information on this development of the curriculum is given in sections 2, 3 and 4. Syllabuses for further subject options in the vocational study areas will continue to be developed.

Oslo, March 1976
Ministry of Church and Education

1. AIMS AND OBJECTIVES, WAYS AND MEANS

1.1 The basic school and the upper secondary school

The upper secondary school (16-19 age groups) is an integral part of the school and education spectrum provided in our country. It is to provide further education based on the foundation laid by the years of compulsory schooling. There should be no break between the tasks and objectives of the 9-year basic school and the aims and intentions of the upper secondary school, even though some of their tasks, such as preparing pupils for their working life, will have a different content and emphasis in the upper secondary school. For this reason syllabuses in the upper secondary school must be based on the ground already prepared in the 9-year basic school.

The upper secondary school is to be open to all young people, who, in principle, are free to choose the content and bias of their education. In every area of study and every line or branch, the upper secondary school will have pupils of differing ability, enthusiasm for and attitude to their work. As far as possible pupils should be able to commence their studies at the level attained at the time of their entry to the upper secondary school, and tuition should be organized so that its scope and speed of progression suit each individual pupil, as far as practically possible.

The right of individual pupils to tuition according to their aptitudes and abilities applies in particular to the handicapped. Whether they attend ordinary upper secondary schools or special schools, they must receive such instruction that they will be able to fulfil normal functions in the greatest possible degree, at work and as members of the community.

Pupils with physical or psychological disabilities should have the same freedom of choice as other pupils in the content and bias of their studies at the upper secondary school. They have, more than others, need of good counselling and careers advice. However, the role of schools here should, as with other pupils be restricted to giving advice.

For all pupils the school should lay the foundation for a lifetime of learning. It is therefore important that it should give its pupils motivation, as well as being able to provide for their differing needs.

1.2 General views on the aims and objectives, and ways and means of the school

According to paragraph 2 of the Further Education Act these are the main tasks of the upper secondary school:

To prepare pupils for their working life and as members of the community, and to lay a foundation on the basis of which they may continue their education. To help pupils in their growth and personal development, and to propagate our cultural heritage. By cultural heritage is meant the total sum of insights and experiences handed down from previous generations, in faith, custom and tradition, art and poetry, science, techology and our institutions.

The statement of principles (§ 2 of the Act) emphasizes the importance of impressing upon all pupils the fundamental Christian values, our national culture and democratic ideas. In this context scholarly and scientific thinking and working methods are also emphasized. The school must also promote equality, intellectual freedom and tolerance, an understanding of ecological principles and international co-responsibility. These attitudes are based, i.a., on the fact that school, by virtue of the influence it has on its pupils, also influences the com-

munity at large and its general development. Our starting point in our choice of teaching and working materials and methods, and in the organization of the school and the school community as a whole must lie in how we wish to live and what sort of community we desire for the future. School activities must be based on considerations of whether there are trends and tendencies in our time which the school should take an active part in strengthening or combating. The question of aims and objectives and ways and means in school is a question which concerns the whole community, and has wide implications.

To a large extent, the statement of principles deals with the preparation of pupils for their life and activity after the completion of their schooling. Nevertheless, the upper secondary school must take pains to create a good working climate and an easy co-operation between all who are associated with it, as pupils, teachers or other personnell (paragraph 15 of the act). It is also one of the school's aims to make time at school both meaningful and happy for each individual pupil.

1.3 Preparing for working life

All tuition in the upper secondary school is, in a sense, a link in the vocational training chain. This also applies to general subjects. Vocational training is, however, the main objective of the majority of lines of study. Also the handicraft and applied arts line must give instruction within its special fields which may serve as vocational training.

One important objective for the upper secondary school will be to carry forward the traditions already developed in the different types of school which have so far provided vocational training, but courses of instruction are also to be offered to those groups among the working community whose needs have not previously been catered for within the school system.

Most of the teaching time in the one-year foundation courses will be concerned with vocational training.

The two-year foundation courses are to provide a vocational education of the same extent over two years, leading to the same level and giving the same qualifications. Pupils are to receive basic training for their chosen work in the foundation courses in those lines of study with a vocational bias. This training must give them a solid starting basis for their working lives. It must, then, as far as possible, be geared to those concrete tasks which the pupils will meet at work.

In addition, the vocational training provided in the foundation courses must be such that it gives a good grounding for further instruction. Later in life pupils will experience great changes, even if they remain at the same job, and these will require new knowledge, skills and adaptability.

Advanced courses are to give further training for work, and the instruction here will be more specialised than in the foundation courses.

Advanced courses may also give applicants with experience from working life, who are hoping for or expecting promotion or positions of greater responsiblitiy, a further theoretical grounding.

Further, the school should offer, as the need arises, courses designed to keep workers abreast with developments within its subject-areas.

The school alone will not, generally speaking, be able to provide a complete and at the same time realistic preparation for working life. It is therefore important that close contact should exist between school and working life. In most areas it will be appropriate for a

greater or lesser part of the instruction to be given at places of employment outside the school. Thus, instruction at places of employment should take its place as an integral part of vocational training. An objective of individual schools must also be to provide vocational training and other instruction which may help to strengthen the economic life of the community around it. At the same time schools should be able to provide courses that will prepare the pupils for employment in other parts of the region or country.

Schools must not bind their pupils and restrict their freedom of choice and of movement by restricting the number and nature of courses they offer.

1.4 Preparing for life in the community

On the one hand, school must prepare its pupils for their tasks as members of the electorate, and as representatives on the political organs of national and local government. On the other hand, it must also prepare them for life with others and cooperation with others in other contexts: in the home, in various organizations and at the place of work.

The school can do this by providing information about our society and social questions in general. But information and knowledge in the traditional sense can only be part of the preparation. In this, as in other fields, pupils can also attain realistic knowledge and understanding from their own observation and experience. Thus there must be no barriers between the school and life in the community around it. Even in the upper secondary school the teaching of social studies and civics must take its point of departure in the sort of society that the pupils know. By seeing and experiencing for themselves pupils must get to know the place where they live, and the management of its affairs.

Preparing for life in the community also implies, as does preparing for working life, the development of good social qualities: respect for the rules of the game in a democratic society, the ability to co-operate, tolerance etc. Even here it is better to let the pupils gain their own experience than lecturing to them. The school must take special care, therefore, to allow its pupils to participate in the decision-making process of the school, and it must help pupils to develop social attitudes and responsibility by extensive forms of co-operation in tuition.

1.5 A basis for further education

The upper secondary school is to provide a complete education, including complete courses of vocational training for those who so desire. But it must also participate in laying a foundation for further education.

Amongst its objectives is that of preparing the ground for further education at universities and colleges. All studies should be a potential basis for higher education inasmuch as a three-year course of study at the upper secondary school is intended, under certain conditions, to qualify for admission to universities and colleges.

Various combinations of training at work and at school may also qualify for admission to higher education. Study at universities and colleges presupposes a certain training at the upper secondary school via the more traditional general subjects, and/or via more vocationally biased subjects.

The term "further education" also includes the training which takes place at one's place of employment, and other forms of instruction, including that which takes place under the auspices of the voluntary educational organizations.

The upper secondary school must be seen as part of the learning process which lasts a lifetime. The aim of the upper secondary school is, therefore, not only to give young people the knowledge and skills they will have need of their whole lives through, but also to lay a foundation of knowledge and skills, on the basis of which they may continue to learn. The school must also see that those skills and abilities are developed which are particularly useful later, when one wishes to take one's bearings and acquire further skills.

Moreover, the school must facilitate opportunities for exchange between working life and school. Pupils with experience of working life will have a positive contribution to make to the atmosphere at school.

1.6 Helping pupils in their personal development

Like the basic school, the upper secondary school is to contribute to the development of personality. It is not merely to furnish knowledge and develop intellectual and other useful skills. It must also assist pupils in their emotional, ethical, social, aesthetic and physical development. Even if the school's point of departure here, as in the rest of its activities, lies in the fundamental values round which it is built, it must first and foremost see its task as to help individual pupils develop an independent personality, and to base their experiences on a personal fund of feelings, conceptions, thoughts and ideals. It is not the task of the school to influence pupils towards particular opinions.

If the school is to fulfil its task in the field, it must take pains to help young people to develop a natural self-respect and self-confidence. Its point of departure in all its activities must be that the prerequisite for progress in school work is that each individual pupil feels that he or she is a success, both socially and as regards

their work at school. Therefore, all pupils must be allowed to work with subject-matter they can understand and at tasks they can manage.

1.7 Spreading knowledge and understanding of the fundamental Christian values, our cultural heritage, democratic ideas and scholarly and scientific thinking and working methods

The second section of the statement of principles (§ 2 of the act) quotes a number of areas which occupy a central position in our cultural heritage, and which should therefore occupy a central position in the guidance the school must give, and in the school's activities in general. Thus, this section describes, i.a., a considerable part of the subject matter to be taught all pupils in the upper secondary school.

The concept of the infinite value of man, and hence the equality of all men, receives expression in our society through the imperatives of charity and solidarity. These values even involve ideas about the moral responsibility of the individual, i.e. the obligations implied by one's conceptions of right and wrong, good and bad. These values and attitudes should provide a general direction to the work and overall activity of the school society.

It is the purpose of religion as a subject to interpret and explain the religious ideas and concepts that form the basis of these values - both those of Christian origin and those that derive from other religions.

Our national cultural heritage implies not only our national literature, art and history, but also the life of the people as it is expressed in popular tradition. That part of our culture which finds its expression in industrial life and the living-conditions and organizations of working people must also occupy a central position in the experience the school is to provide.

By spreading knowledge and understanding of democratic ideas, we do not merely mean that pupils should be made acquainted with these ideals but also how they find their expression through our political organs. It is of equal importance to show how they are relevant to daily life, at home and at work, and what a democratic way of life and forms of co-operation at one's place of emplyment, in the home, in political organizations and above all in one's relationships with other people imply.

When the act (§ 2) states that the upper secondary school is also to contribute in the spreading of knowledge and understanding of scholarly and scientific thinking and working methods, this means that pupils must receive some insight into scientific methods in the different areas of research, and that they themselves learn to think clearly and logically and grow accustomed to forming their opinions according to critical and independent judgement based on insight.

Even if those areas which are named in the second section of paragraph 2 must be regarded as a description of part of the subject matter of the upper secondary school, it is important to realise that we are faced with tasks of far wider application than that of simply dispersing knowledge in the traditional sense. Knowledge and understanding of values is also a question of attitudes and experience and thus of the way in which the school is organized and of working methods in school. The extent and thereby also the content of the guidance school can give in these fields will also, of necessity, vary greatly according to facilities and other overall conditions.

When the school shows respect to all its pupils, and when all its pupils feel that they are accepted, when no discrimination occurs on the basis of skills and abilities, then the school itself makes a practical contribution towards giving its pupils knowledge and understanding of fundamental Christian values.

In the same way it will be possible to pass on the knowledge and understanding of democratic ideas at first hand by allowing pupils to participate in the running of the school and giving them influence over their own situation.

Democracy in the context of the total school community does not, for that matter, only imply that the pupils are represented in the various democratic bodies that manage the school. It also means that the pupils must participate in matters concerning teaching, its form and contents.

The pupil/teacher relationship must bear the stamp of partnership and collaboration.

In the same way the school will best be able to familiarize its pupils with scholarly and scientific thinking and working methods by the way in which tuition takes place and the pedagogical methods used.

In choosing both teaching and working materials and also working methods, it should be borne in mind that pupils must accustom themselves to basing their thinking on reliable information and learn to respect what is true and right and objective when taking a stand in a matter.

1.8 Equality

Equality between both individuals and groups is one of the conditions which must be fulfilled before democracy can function in the different areas of community life: in school; in the family; at one's place of emplyment; in those organs where decisions are made. Laws and regulations which ensure a formal equality are inadequate. The goal is genuine equality in all areas: the relationships between men and women; between different social groups, age groups, ethnic groups; between different geographical areas etc.

At school, work must, first and foremost, progress towards the achievement of equality within the school's own internal community. This implies on the one hand that everybody, no matter what their place of residence, social background, sex, race, skills and abilities, shall not only have the right to an education, but the teaching and conditions generally at school must, as far as possible, be adapted to the interests and abilities of the individual pupil. Further, the school community must be permeated by the idea of equality and avoid forms of treatment and assessment which seem to discriminate against groups of pupils or individuals.

The structure of the school community and the relationships between all who work there, and the way in which the school treats its pupils must help in educating them to respect other people, their rights and their equality. Thus, the school will be able to take active part in furthering equality and equal rights in society outside school. Pupils will only be able to feel that there is parity between the different areas of study if, no matter which area they may choose, they are given the opportunity of at least a three-year course of instruction, either at school or a combination of school and work.

By the guidance it gives and through its subject matter, teaching materials and working methods school must play its part in combating attitudes and fixed ideas born of prejudices about inequality between the sexes, social groups or communities.

1.9 Intellectual freedom and tolerance

Here too the school's duty and objective is of a dual nature. On the one hand, the pupils must feel that the school respects their different opinions and, not least, the differing traditions they bring to school from their

homes. On the other hand, the school must help in education its pupils to respect other people, their opinions, attitudes and (in the widest sense) backgrounds.

The school itself must practise tolerance, and thus contribute to furthering tolerance as a fundamental attitude to life.

1.10 Understanding of ecological questions and international co-responsibility

The utilization of nature has in many respects degenerated into plunder. Both in our own and in other countries, a frightening destruction of plant and animal life is in progress. The earth is in the process of becoming poorer, while the basis to human life is threatened with reduction. At the same time, air, water and other gifts of nature are being poisoned.

Against this background the upper secondary school, like the 9-year school, must see it as a task of paramount importance to present its pupils with factual knowledge about the threats hanging over us, and the connection between them and economic, social and political questions. Tuition here must not only provide pupils with the information to enable them to consider how they may check this development, but also help to create a positive attitude to conservation and the protection of the environment.

Similarly, the school must feel the responsibility for ensuring that the next generation will be able to solve the social and political tasks of the world in a better way. Facts must be placed before the pupils which will help them to understand why the world is so troubled by conflicts between nations, threats of war and war itself.

2. THE SCHOOL AND THE COMMUNITY

The upper secondary school is to prepare its pupils for their work and for community life. This it may do both in its practical and theoretical vocational training, and through its tuition in social studies and general subjects. But the school's own facilities for the provision of comprehensive and realistic experience of community and working life are limited. Full use should therefore also be made of those sources of knowledge and facilities for training which are to be found in the neighbourhood of the school, at work or in the community.

There are many ways in which this may be achieved. The school may invite representatives from firms, or public institutions and organizations to come to the school with information, or participate in other ways in tuition. Pupils may go on excursions to places of emplyment and other institutions. By seeing for themselves in this way they will have the opportunity of familiarizing themselves, among other things, with the management of their town or village. Pupils can take part in investigations into social, economic or other conditions within the local community. It will be of great value if the school's pupils can be engaged in projects which will benefit their town or village, e.g. social or cultural ventures.

Relatively short periods during which the pupils are placed out at jobs will help them to get to know the conditions and the tasks they will meet there, and thus supplement and strengthen the training which the school itself gives.

In many trades, training takes place, to a greater or lesser degree, under the auspices of firms through the apprentice system. In practice this means that the firm looks after the practical training, while the school provides tuition in job theory and certain other theoretical subjects, possibly also supplementary practical instruction.

This will continue to be a common form of training, but other channels of co-operation have also been established between school and economic life, so that pupils receive part of their training at school, while other parts take place at one or more firms outside the school. Alternatively, the school may take on certain assignments as part of its training programme. Further development of forms of co-operation between school and economic life will be an important task in upper secondary education.

Opportunities for tuition outside school may vary, of course, a great deal between the different areas of study, and from line to line within the same area of study. The opportunities for, and forms of, co-operation which may exist at school and in working life will also depend on local conditions. The co-operation between school and economic life has been investigated by a special committee, and a decision will be taken later as to whether new rules and directives are required. The individual school should, however, investigate for itself what possiblilities are available locally, and consider what forms of co-operation are best applicable there. Advanced vocational training should, as far as possible, be arranged as a sandwich scheme: school/active employment.

The transformation and expansion of the upper secondary school system which is on the threshold will in many ways have consequences for both local communities and the country as a whole. The education an upper secondary school provides may contribute to the strengthening or the slowing down of the general development within its own particular area. It is therefore important that the individual school should take local needs into account in areas of study, in special lines of study, optional subjects and the content of tuition. In this way it may help to strengthen the economic life and the community around the school. The upper secondary school should also aim to stimulate cultural life and strengthen cultural values locally.

The school may make a contribution to the local community by making its premises and equipment available for adult education, follow-up and supplementary courses, physical recreation, cultural ventures and other leisure activities. It will often be appropriate for such activities to be conducted under the auspices of the school.

The school should also try to achieve its goals in co-operation with the home. It is of special importance that the home should be kept fully informed of the school's content, its areas of study and what qualifications they give, and of the opportunities for further training and employment. As far as it is practically possible, the school should encourage parents to take an active part in its work.

3. THE SCHOOL COMMUNITY

The upper secondary school has broad objectives. It must not only give knowledge, and develop intellectual and other useful skills: it must also help its pupils in their emotional, ethical, social, aesthetic and physical development. Its tasks include familiarizing its pupils with democratic forms of co-operation and co-existence.

Teaching and working materials in normal tuition are of course important means towards this end, but no less important are the working methods adopted and the pupils' experiences of the school community. While it is a goal in its own right that the school, as any other place of work, should bear the hallmark of democratic ideas of participation in decisior making, co-operation, tolerance etc., it should also contribute to the development of good social qualities, by the way in which the school community is organized and by the prevailing spirit of the school.

Rules and regulations have laid down that to a greater extent individual schools are to make decisions on a number of matters, which previously have fallen under the jurisdiction of authorities outside the school. Included here are which optional subjects the school is to offer, how tuition is to be arranged, the allocation of teaching hours and other resources, and rules concerning the pupils' rights and their duties. The school's organs of government are also to express opinions on a number of other questions which have previously been decided by other governing bodies.

The individual school is to have separate councils for its pupils, teachers, and other staff in its employment, and for each school there is to be an elected committee, which is to be its highest authority on a number of matters. According to the provisions of the act, the school committee is to consist of seven members. Of these, two are to be chosen by the county school board, two from the teachers' council, two from the pupils' council, and one from the council for the other school employees.

In these advisory councils and the school committee, the foundation has been laid for greater autonomy in the individual school. But other conditions must be fulfilled before the provisions of the act and rules and regulations can lead to genuine participation in decision making for pupils, teachers, and other employees. Among these are, first and foremost, the development of democratic attitudes and the necessary skills to work in a democratic context. This implies knowledge of and respect for the rules of democracy, respect for other people's opinions, the ability and will to co-operate and compromise, and the ability to express one's opinions. The development of such qualities is also one of the objectives of these new councils and the tasks which will be allotted to them.

It should, nevertheless, be borne in mind that a system of representation, of the nature of that about to be introduced, will not in itself lead to a more democratic school community. Only a small number of pupils will be able to serve on the various councils and decision-making committees. General meetings may be a means of activating broader groups of pupils. Further necessary means are close contact between the school's management, the pupils' representatives in the pupils' council and the school committee, and a good system of information. By means of general meetings and a broader exchange of views larger groups may have an active influence on the decisions made, among other places on the school committee.

Democracy in school is not, however, merely a question of direct or indirect influence in important matters of common interest. It is also a question of the influence of the individual over his own situation in his daily life and daily work.

The free choice of area of study, special line, and optional subjects will help towards this end, but pupils should also have a say in the way individual subjects are presented, within the limits imposed by subject syllabuses and other considerations.

The syllabuses included in this curriculum are given as a guide. This means that they allow both teachers and pupils greater freedom than former syllabuses, in the choice of topics and tasks as well as the choice of working methods. This freedom of choice may vary from subject to subject, but every sullabus presupposes detailed planning of the tuition and work in the individual class or group. Pupils and teachers should co-operate over this planning, and the teacher has an important task in explaining to the pupils what any particular subject

syllabus demands, and in making such recommendations and giving such guidance as will enable pupils to participate in the planning. It is the right and the duty of the teacher to have the professional responsiblility for tuition, and to ensure that a reasonable plan and method is adhered to. It is also obvious that the plans arrived at after discussion are under constant evaluation and assessment.

Class and group work should also be arranged so that the individual pupil has the freedom to choose his own topics and methods, as far as this is expedient, and within the general framework of the work of the class or group.

The way in which classes or groups are put together (the organization of tuition) is of significance for a school's social atmosphere and its social teaching. Until now a fairly rigid grouping into classes has been usual in all upper secondary schools. In the new upper secondary school, more flexibility and variety will be required in this area. The different ways in which tuition may be arranged are described in greater detail in chapter 4. It should, however, be mentioned here that permanent class units have their own great social advantages. Many pupils may feel insecure and rootless unless there is som small social environment they feel a special attachment to. But more flexible systems also have their advantages. It may help to bind them to the school community if pupils are allowed to co-operate in this way with a broader group of their fellow pupils. Getting used to co-operating with different groups and with pupils from different areas of study with different careers in prospect to their own may also be a valuable part of their social education.

The organization of the individual school will naturally depend on local conditions such as the size of the school, the areas of study, special lines and optional subjects it offers, the attitudes of the teachers and pupils etc.

But an effort should be made to arrive at a reasonable compromise between permanent groups, to which the individual pupil may feel attached, and regrouping of pupils for a greater or lesser part of teaching time.

As far as possible, the school day should be arranged so that the pupils have a "free period" on one or more days a week.

Some courses will permit a mid-day break every day. The mid-day break may be taken up with i.a. pupils' council matters, sociopedagogical enterprises and other extra-curricular activities. Pupils from different areas and lines of study will have a further opportunity to co-operate in the mid-day breaks.

4. THE UPPER SECONDARY SCHOOL SYSTEM

4.1 Basic principles

The upper secondary school system is based on two principal assumptions:

(i) that everyone shall have the opportunity of further education on completion of their compulsory basic schooling;

(ii) Within the framework of the instruction provided by the upper secondary school, pupils should be able to choose their own educational routes, as far as this is possible.

The instruction provided must be set up within a relatively broad perimeter if it is to meet these demands. It should allow for changes in subject content, subject combinations and working methods. The structure of the school must be such that pupils may choose subject combinations, but have the opportunity to change them later if they so wish. It should be taken into account that in every chosen course of study there will always be some

pupils who wish to transfer to a different area of study, or go out into gainful employment after one or tow years.

The upper secondary school places a number of choices before its pupils. Among these are the choice of area or field of study and, within the chosen area, a special line.

In all vocational areas of study pupils should as far as possible have the choice between courses giving mainly vocational instruction (one-year foundation courses and advanced courses) and courses with a broader general range of subjects, in addition to the actual vocational training (two-year foundation course).

Pupils must be able to choose whether they wish to attend the upper secondary school for one, two or three years. The system is such that a pupil leaving after one or two years will still have received a complete education. At the same time, the syllabuses for a number of areas of study and special lines have been set up in such a way that they provide continuous progression for those pupils who remain at the upper secondary school for three years.

4.2 Areas of study and special lines

The moment they enter the upper secondary school, pupils have to choose an area of study. Within each area of study, there are also several special lines. According to the regulations, the special line may be chosen in the first year, though in certain cases division into lines of study does not occur until a later stage. In certain areas of study, the special lines from the foundation courses are again sub-divided into new lines in the further courses.

Below follows a survey of the areas of study and special lines which are offered at present in the upper secondary school.

The foundation courses may be of one or two years' duration, though in some areas of study there are also shorter foundation courses, e.g. half-year courses. The survey does not include full details of the entry requirements to the intermediate and advanced courses. In some technical and industrial subjects, pupils from different foundation courses may be admitted to the same advanced courses. A foundation course will usually qualify for admission to several different advanced courses. Courses with experimental status are not included in the survey.

The need for new types of instruction is constantly arising, and in consequence new lines will gradually be established. It may also be mentioned here that the basic instruction in technical and industrial subjects is at present under special survey.

Area of Study	Foundation Course	Advanced Course I	Advanced Course II
General subjects	No division into special lines	Natural sciences line Social sciences line Languages line	Natural sciences line Social sciences line Languages line
Aesthetic subjects	Domestic handicrafts line[x] Music line	Weaving line Needlework line Woodwork and metal work line Textile design line Line for drawing/form and colour Music line	Course for: Leisure activity leaders Elementary occupational therapists Domestic handicrafts Music line
Commercial and Clerical subjects	No division into special lines	Office and administration line Economics line	Marketing Electronic Data Processing Accounts/ economics
Home economics catering	Lines for: home management [xx] cooks waiters and waitresses	Lines for: relief housewives cooks ship's cooks insitutional catering restaurant service	Central Apprentice School

[x] The foundation course may be a one-year basis-course in art with the main emphasis on drawing, form and colour. Alternatively, it may be a half-year course in art with the main emphasis on the following half-year units: weaving, needlework, textile design and woodwork and metalwork.

[xx] One-year foundation course in home management and half-year course in home management. At some schools the half-year course may be extended by an additional half-year course in home management or half-year courses in neddlework or domestic handicrafts subjects.

Area of Study	Foundation Course	Advanced Course I	Advanced Course II
Technical (craft/trade) and industrial subjects	courses for builders		
	special lines for woodworkers and brick layers		
	Course for plumbers	Lines for industrial plumbing and for plumbing in building and construction	
	wall-papering upholstery carpentry and joinery wood carving	carpentry and joinery and cabinet making	
	painting and decorating		
	timber trade		
		boatbuilding	

Area of Study	Foundation Course	Advanced Course I	Advanced Course II
Combined			
	Basic training in electrical subjects		
	Power engineering	Line for electricians Line for power station personnel, power engineering	
	Electronics		
		Radio/TV Service electronics for maritime equipment	
		Electrical Repair work a) office equipment b) domestic equipment	
		Automation techniques	
	Basic hairdressing	Ladies' hairdressing Gentlemen's hairdressing	
Combined			
	Basic training in printing subjects Typesetters Printers	Lines for: Serigraphy Reproduction techniques Book binding Composition and lay-out enchasing	Central Apprentices' School

Area of Study	Foundation Course	Advanced Course I	Advanced Course II
	Line for operators, Industrial chemical processes Line for chemical laboratory assistants		
	Process technology		
	Plastics technology		
	Line for bakers		
	Line for bakers and confectioners		
	Line for sausage makers		
	Machine and mechanics line	Line for construction machine mechanics	
		Line for construction machine operators	
		Line for aircraft mechanics	
		Line for electrical engineers	
		Line for motor mechanics	Automobile electricians
			Motor and chassis repairers
			Motor body work repairers
			Coach and truck repair

Area of Study	Foundation Course	Advanced Course I	Advanced Course II
		Line for agricultural mechanics	
		Line for machine operators	
		Line for machine repairers	
		Line for trainee machinists	
		Line for mechanics	
		Line for toolmarkers	
		Line for motor mechanics	
		Line for refrigeration mechanics	
		Line for precision mechanics	
		Line for instrument mechanics	
	Plate, welding and steel construction line		
	Line for goldsmiths		
	Line for watchmakers		
	Line for refrigeration assembly	ventilation assembly	
	Line for copper and tinsmiths, thin plate workers		
	Sewing subjects:		
	Sewing	Dress and suitmaking	Dress and suitmaking
		Assistants in clothing manufacture	Clothing manufacture technicians
	Tailors	Tailors	Tailors
	Cartographers		
		Surveyors	

Area of Study	Foundation Course	Advanced Course I	Advanced Course II
	Technical draughtsmen	Architects' assistants	
	Photographers	Photographers	
	Photography assistants		
	Art and design (Advertising and decoration)	Graphic designers	Graphic designers
	Rosepainting		
	Textile industry		
	Opticians		
	Music	Music	
	Piano-tuners and repairers	Piano-tuners and repairers	Piano-tuners and repairers
	Hotel reception personell		
Physical education	Physical education		

A foundation course in Social Services and Health is organized on an experimental footing from 1978

Social Services and Health Subjects	Line for paramedical personnel:		
	Pharmaceutical technicians		
	Chiropodists	Auxiliary nurses	
	Cosmeticians		
	Nursery nurses		
	Doctors' secretaries	Doctors secretaries	
	Dental secretaries	Dental technicians	Dental technicians
	Dental technicians	Radiographers	

Individual schools may also offer other courses not mentioned above. This applies particulary to courses of shorter duration.

Advanced courses for applicants from industrial life

Special line provided	Two year technical school	School for middle management and foremen, Technical courses and technical courses in the further education sector	Courses for technical assistants - part-time courses
General technical			X
Construction	X		
Pharmacy techniques		X	
School for work supervisors in printing subjects		X	
Building	X		
Building and construction			X
Automobile line		X	
Operation and management techniques		X	X
Electrical subjects	X		X
Electronics	X		
Power engineering		X	
Electronic engineering		X	
School for work supervisors in the workshop industry			
- metallurgical subjects		X	
House building	X	X	
Chemistry	X		
Machines	X	X	X
Machine techniques and operation techniques		X	

Special line provided	Two year technical school	School for middle management and foremen, Technical courses and technical courses in the further education sector	Courses for technical assistants - part-time courses
Housebuilding and Construction		X	
Heating, water and sanitation		X	
Course for caretakers			X

As mentioned earlier complete syllabuses for maritime education according to the new plan have not been finalized. The courses provided at maritime schools up to the present will continue in use until further notice. The courses provided include the following:

Course for mates and masters
Course for skippers of fishing vessels
Course for ship's engineers and chief engineers
Course for ship's electricians
Course for radio officers
Course for cooks and stewards
A syllabus for a foundation course in fishery subjects is under experiment.

Tuition will continue for the next few years at some upper secondary schools on the basis of "Syllabuses and tuition plans for the Senior High School, according to the Act of 12 June 1964 concerning the Junior and Senior High School".

4.3 Foundation and further courses

Tuition in all areas of study is organized in foundation courses and further courses.

The foundation courses are a direct continuation from the nine-year school, and may be of one or two years' duration. In some areas of study, the one-year foundation course may be subdivided into two half-year courses.

Advanced courses may be based on foundation courses or on training and experience from working life. They are, as a rule, of one year's duration, but may also in certain instances last for two years. In certain areas of study, advanced courses may be designed to follow each other in progression (advanced courses I and II).

In those areas of study with a vocational bias, the one-year foundation courses are largely devoted to vocational training, and only a minor part of teaching time is allotted to general subjects. In the two-year foundation courses in areas of study with a vocational bias, approximately half of the teaching will be devoted to general subjects taken by all pupils. The other half will be taken up with vocational and optional subjects.

In the general subjects area of study, the educational route usually consists of a one-year foundation course and two one-year advanced courses (advanced course I and II). It may alternatively be arranged as a two-year foundation course and a one-year advanced course. The range of subjects and content of tuition will, in principle, be the same no matter which pattern the school has chosen: 1+1+1, 2+1 or 1+2.

Part of the training may take place out at work in the vocationally biased areas of study.

Pupils who have completed two-year foundation courses in vocational subjects may transfer to general subjects for the third year. It will not be easy to transfer from one area of vocational study to another, or from general subjects to a vocational area of study without loss of time since additional knowledge and skills have been acquired.

4.4 Part time and shorter courses

Foundation and advanced courses may both be offered as part time courses, depending on local conditions and resources. As a rule their duration will then be twice that of the full time courses. Apprentices' courses are provided for apprentices in technical and industrial subjects. These are full time courses which cover a greater or lesser part of the range of subjects (mainly the theoretical subjects) in the corresponding complete foundation or advanced courses.

4.5 Range of subjects

Within the individual courses, the range of subjects may consist of three main components:

1. General subjects, common to all pupils
2. Area of study (and special line)
3. Optional subjects

The first two tables below show how weekly tuition time may be divided between the three main components of the subject range in the one-year and two-year foundation courses. The two tables which follow are examples of subject/period allocation in further courses.

ONE-YEAR FOUNDATION COURSES IN VOCATIONAL AREAS OF STUDY

	Technical and industrial	Domestic and handicrafts	Clerical and commercial
General, common core subjects:			
Norwegian and social studies	2	2	3
Physcial education	2	2	2
Special area of study subjects	29	27	24
Optional subjects, consolidation periods or other subjects 1)	2	4	3
Total	35	35	32

1) All schools must provide pupils with 31 periods in special area of study subjects, inclusive of vocationally based optional subjects, but allowing them the choice of two periods for optional subjects according to the school's capactiy. The deduction of statutory apprenticeship time before qualifying for a craft certificate may vary with the choice of subjects.

TWO-YEAR FOUNDATION COURSES IN ALL AREAS FOR STUDY

	1st year	2nd year
General common core subjects:		
Norwegian	4	5
Religious instruction	0	2
English	4	3
Social studies	0 (3)	6 (3)*
Natural sciences	5	0
Physical education	3	2
Special area of study subjects	14 (11)	12 (15)
Optional subjects, a maximum of:	5	5
Total, a maximum of:	35	35

ADVANCED COURSES IN THE GENERAL SUBJECTS AREA OF STUDY (3RD YEAR COURSES)

General common core subjects:	
Norwegian	5
Religious instruction	1 (2)
Social studies	5
Physical education	3
	14 (15)
Special area of study subjects - natural science, sosial studies or languages lines or optional subjects	14 (15)
	30

* In the commercial and clerical area of study 5 weekly periods.

ADVANCED COURSES IN THE TECHNICAL AND INDUSTRIAL AREA OF STUDY

Subject/period allocation in Advanced Course I:

Subject	Weekly periods
Workshop practice	34
Economics of trades	2
Modern languages/social studies	2
Physical education	2
Total	40

The table below exemplifies the allocation of periods in workshop practice and theory:

Toolmakers

Workshop practice		988 periods
Theory:		
Tools	66	
Materials	30	
Grinding and sharpening	16	
Measuring techniques	20	
Industrial safety and accident prevention	10	
Maintenance	10	
Theory related to practial exercises	38	190 periods

It will be possible to allocate some of the periods under special area of study to certain optional subjects in the general studies line.

The complete timetables showing subject/period ditribution are to be found in part three of the curriculum.

Each period of work technique in a number of vocational areas of study is to be of sixty minutes' duration. Further details as to which areas of study and subjects this applies to are given in section three: syllabuses for special areas of study.

Other subjects under these areas of study have periods of forty-five minutes.

In the areas of study for general subjects and commercial and clearical subjects, schools may choose between two models, one with tuition units of forty-five minutes and one with tuition units of forty minutes. Schools choosing the forty minute period must try to make it equivalent as far as possible to the forty-five minute model. In addition, the following regulations apply to the forty minute model:

In the general studies area of study pupils are to receive the following minimum number of periods per week.

First Year	32
Second Year	32
Third Year	31

The subject/period distribution of the forty-five minute model is considered the basis, and the individual school decides how the extra periods are to be used (two periods per week in the first and second years, one period per week in the third year) according to the following rules:

First year:	consolidation of the general subjects common to all pupils, or additional optional subject.
Second and third years:	consolidation of the general subjects common to all pupils, special line subject and/or optional subject.

For one-year foundation courses and advanced courses in the commercial and clerical subjects area of study the individual school may, within this model, decide on a greater minimum number of periods for the pupils than 32, though not more than 35. The individual school decides which subjects it wishes to consolidate in this case.

For two-years foundation courses in the commercial and clerical subjects area of study the minimum number of periods according to the forty minute model is 32 for both years. The individual school decides which subjects it wishes to consolidate.

In both models, individual pupils may receive a greater number of periods per week than the minimum decided on the school: this on account of optional subjects.

The general subjects common to all pupils are common subjects for all the different lines and areas of study. There is one group of general subjects common to all pupils who have opted for a oneyear foundation course in a vocational area of study. There is another group of general subjects common to all pupils who have opted for a two-year foundation course, i.e. Norwegian, religious instruction, English (A-language), social studies, science subjects and physical education. The syllabuses for these subjects are grouped together in section two of the curriculum. All the syllabuses in question offer considerable latitude in the choice of method, and materials depending on the pupils' interestes and prospective careers. Thus the syllabuses permit the coordination of tution of common general subjects with tuition in vocational subjects. They also allow for differentiation, according to the pupils' differing capacities and prior knowledge.

The area of study (and special line subjects) are a large or small block of subjects within the individual

area of study (or special line). These may be general subjects, vocational subjects, aesthetic subjects or others.

The optional subjects may be subjects of personal interest with no particular relevance to the pupil's chosen area of study (or special line), or they may be subjects which supplement areas or lines of study. The optional subjects may be chosen from vocational subjects, general subjects or aesthetic subjects. The periods not allocated to common general subjects or area of study subjects may be used for optional subjects. All areas of study are arranged to give room for optional subjects.

Within the individual subject, a distinction is drawn between foundation and advanced (i.e. intermediate and advanced) course units. A course unit is usually of one year's duration, though it may be spread over two years for some pupils. The time taken to complete a course unit will vary according to the pupil's capacity. A more detailed treatment of this form of differentiation is given in chapter five. In subjects extending over more than one year, the syllabuses are designed to give continuous progression in tuition. There may be a need for courses of shorter duration, i.e. courses of lesser dimension than a course unit.

4.6 The structure of the individual school

The areas of study, lines and types of course mentioned above represent the total spectrum of instruction provided for the whole country. The individual school will only be able to offer a small portion of this spectrum. This also applies to schools offering several areas of study.

Pupils choosing areas or special lines of study not provided at their nearest school must be allowed to apply for places at schools offering the courses in question.

In the case of schools under the county education authority, the county decides which areas and special lines of study, foundation and advanced courses the school is to have. When it has been decided what courses the school is to offer and the number of pupils fixed, the county school board will determine the total number of teaching hours the individual school will have at its disposal, taking into account the basis-timetable and possible rules for the calculation of teacher-hours laid down by the ministry. It is then the school committee's job to decide, within this framework, which optional subjects the school is to offer, what classes or groups it is to have, and how tuition is to be organized.

A number of periods (tuition units) from the total number of teaching hours are reserved for socio-pedagogical purposes, including counselling. The remainder of the teacher-hours are to be used for tuition.

Care should be taken in the organization of tuition to see that individual pupils have a number of their periods in the same permanent class. There are different ways of arranging this:

1. Classes are constituted in such a way that the pupils are together for the common general subjects (part 1 in the range of subjects). Classes may then be divided or regrouped for the area og study (and special line) subjects. For optional subjects (part 3 in the range for subjects) pupils must again be regrouped according to their choice. This model is particularly appropriate for two-year foundation courses in vocational areas for study and in general subjects. It also makes it possible to assemble

pupils from different areas and special lines of study in the same class for common general subjects.

2. Classes are constituted on the basis of the pupils' choice of area and special line of study. This model is most suitable for one-year courses in vocational areas of study. In common general subjects and possibly also in other theoretical subjects, two classes of up to fifteen pupils may be joined together. Pupils may also be regrouped more flexibly in these subjects.

3. Classes are constituted so that the pupils are together in both common general subjects and area (or special line) of study subjects. This model may be used i.a. in the general subjects area of study. If, however, it is used in first year course it will as a rule be necessary to regroup pupils or reorganize classes in the second year courses, when pupils have chosen their special line and subject combination.

In addition, one should try to arrange tuition so that individual pupils are able to choose optional subjects according to their interests. However, the prescribed basis-timetable requires groups of reasonable size for optional subjects. It will not always be possible or economically viable to offer every option.

In certain subjects it may be necessary to regroup pupils from several different classes with streaming according to level of attainment in mind. This in turn requires that the subject be taught simultaneously in several different classes, if this is possible otherwise.

Some pupils will need to repeat a year's course in some subject or another. It will be an advantage for these pupils if the timetable for their class can be co-ordinated with that of a lower year's course, so that they may attend tuition there in the subject in question. Again

this will often depend on practical possibilities.

For a number of subjects it will be desirable for a part of the course to be taught in smaller groups. To facilitate this two or more classes may be joined together into one large class for other periods of the subject. One solution to the problem is team-teaching. Teachers of the same subject in different classes cooperate so that when one teacher is teaching a large class other teachers take smaller groups in topics requiring more individual assistance. Alternatively they may take smaller groups of pupils needing special help.

The subject/period timetables said down by the Ministry are to be regarded, first and formost, as rules govering the division of teaching time between the subjects. Individual schools must decide how these can be translated into a working timetable and suitable working sessions.

The school might wish, for example, to introduce a tuition-free period in the middle of the school day, or at the beginning or end. These periods may be used for pupils' council meetings and socio-pedagogical ventures, for different types for counselling, homework and other forms of private study.

5. DIFFERENTIATION

5.1 Subject differentiation and differentiation within the individual subjects

The upper secondary school is to be open to all young people, and the principal ground for differentiation will be the pupils' interests and prospective careers. The school must therefore have suitable tuition to offer to everyone. As far as possible, each individual pupil must receive such tuition under such working conditions that abilities are developed and skills and knowledge acquired, according to his or her potential. In all upper secondary schools, pupils will vary greatly in their different interes ts and intended careers, as in their abilities and the extent of their prior knowledge. Subject differentiation will therefom be reguired, as will differentiation within individual subjects and course units.

The upper secondary school will encounter the need for subject differentiation first and foremost in the broad spectrum of areas of study, special lines and optional subjects, which is expounded in chapter four. What individual schools are able to offer will, however, be more or less limited. Pupil who wish to opt for areas of study and special lines unavailable at their nearest school or schools should be permitted to apply for admission to another school, where the tuition they wish is provided.

Pupils are to be free to leave school after one or two years to go out into gainful employment. Pupils returning to school after gaining job experience should be provided for, and the professional knowledge acquired taken into account.

5.2 Differentiation within the individual subjects and course units

Within the individual subject or course unit the need for differentiation will also be extensive. Syllabuses are therefore given as guiding lines. They do not prescribe subject matter in detail, nor do they define the working methods to be used. As a rule they are so comprehensive that a selection must be made, both for the class as a whole and for the individual pupil. A distinction is therefore made in the syllabuses between the subject matter and tasks which should represent a common core for all pupils, and optional topics and subject matter. There will also be the opportunity to work at tasks and topics not mentioned in the syllabuses. There will not, however, be the same degree of pedagogical freedom here in question in every subject. Each individual syllabus will cover in detail what pupils must work at and what they must learn in the subject concerned.

The system whereby syllabuses are given as guiding lines is intended to serve several purposes:

An effort must be made to take the pupils' interests into account; when a pupil is allowed to work at topics and tasks in which he is interested and to which he is committed, learning will be easier and give greater results.

The syllabuses also permit the co-ordination of tuition in different subjects. Another objective should be to adapt tuition to suit local conditions, so that the opportunities for traning in the locality round the school are taken advantage of, and pupils will be able to build on experiences from their own environment during their training.

As far as possible, care must be taken to ensure that the individual pupil receives instruction which is suitable for his level of attainment and his general ability and potential. He must be allowed to work with subject matter he can understand, and at tasks he can manage. A conscious effort must be made to arrange all tuition so that the pupils have the opportunity of working at tasks in which they can succeed. At the same time, it should also be an objective to ensure that all pupils, according to their skills and abilities, should encounter challenges in their school work which demand effort end energy.

5.3 Different forms of differentiation

The subject syllabuses allow for different forms of differentiation. A distinction may be made between differentiation in subject matter, differentiation in level of attainment, and differentiation in speed of progression.

Differentiation in subject matter implies that pupils within the same subject and course unit work with different subject matter and at different tasks. This type of differentiation is not unknown in Norwegian schools. Different classes have, for example, read different selections of literature in Norwegian and foreing languages. And within the same class pupils have worked at different topics for their special project. In practical subjects, work projects have often varied according to local conditions.

What is new about the subject syllabuses in this curriculum is that they allow greater strides to be made in this direction. It is first and foremost by this means of differentiation that the pupils' interests can be accommodated, and in this way tasks and topics may be arrived at to which the pupils may feel committed.

Among other things, the greater freedom of choice facilitates the allocation of more time to individual topics and areas of the subject. This, in turn, allows for study in greater depth.

In vocational areas and special lines of study, the subject matter of general and vocational subjects may be co-ordinated, so that they back each other up. The content of general subjects may differ between, for example, commercial and clerical and different lines of the technical and industrial area of study. Tuition in science subjects and mathematics may be adjusted to the needs of the various subject groups and given a greater vocational bias. To some extent, subject matter from the appropiate vocational fields may be incorporated into Norwegian, social studies and foreign languages.

The freedom of choice in subject matter and areas of work will not, as mentioned above, be equally great in every subject. As a general rule, differentiation in subject matter must be compatible with the preservation of the aims of the course and the qualification it gives. Nor must it prevent an assessment of the pupils' overall performances on a comparative basis. Just how far one may go in this respect is treated in detail in the individual syllabuses.

By differentiation in level of attainment an attemt is made to adjust tuition and work to the individual pupil's abilities and potential. In vocational areas of study, the various career opportunities within the pupil's chosen field should also be taken into account. There will be a need for internal differentiation in most subjects, as well as differentiation according to different prospective careers and different interests. The same common goal is maintained even where this type of differentiation is practised.

Differentiation in level of attainment may be achieved both by greater or lesser coverage range, or by study in greater or lesser depth in certain subject areas. Within precisely defined limits, it is possible in all subjects to make a choice of topics from those named in the syllabus. Thus, those pupils with the necessary capacity may be given a broader introduction to the subject than others. Differentiation may also be practised in the teaching of various topics, some pupils studying them in greater depth and working with more difficult tasks. One can strive towards the required level of attainment in the subject in different ways. For weaker pupils a reduction or simplification of subject content may be necessary, in addition to extra coaching. For stronger pupils it may be appropriate to give them more difficult material requiring study in greater depth, and guidance to help them in private study.

An attempt is made to accommodate the pupils' differing working speeds and capacities by means of differentiation in speed of progression. Individual pupils will not arrive at the same point within a given time limit. A high degree of differentiation in speed of progression will always occur in practical subjects, since for most of the time pupils are working on their own projects. A more systematic form of differentiation in speed of progression will be achieved via the so-called study-station form of instruction. Here the individual pupils work at a given machine, or at learning a given technique until the necessary skills have been acquired, after which he moved on to the next study-station.

Differentiation in speed of progression may be applied to parts of the subject matter or to the whole year's course in a subject. Those pupils who need to should, for example, be allowed to take two years over a tuition unit normally lasting one year. Clearly, a number of pupils will benefit from taking longer time over all or

a greater part of the subjects in a course. In other words, such pupils will need two years, for example, for a one year foundation course. It may, however, be appropriate for pupils requiring longer time for only one or two of the subjects in a course to proceed to a further course. As far as possible, schools should arrange classes so that the pupils in question may work at course units on a lower level in the appropriate subject or subjects. Similarly, a pupil who has attended second year courses should be allowed to take the first year exam.

It will probably also be desirable to allow for course units of less than one year's duration. This may apply to individual subjects or parts for subjects, which may, for example, be completed in half a year, or it may apply to the whole subject range, divided over shorter periods with the exam divided into small units.

5.4 Organizational differentiation and differentiation within the class

In the vocational areas of study, subject differentiation largely occurs through the pupils' choice of special line. As a rule the individual units are small (with a maximum of 15 pupils), and the group will strive towards a common level of attainment. In the general subjects area of study, as well as a few other, the different forms of differentiation mentioned above may be practised within the individual class as well as by special grouping (organizational differentiation). It may be necessary for schools to employ organizationel differentiation in order to ensure effective tuition, so that pupils are assembled in suitable working groups. In these cases too, there will still be a certain need for differentiation within the individual class or group.

As part of the process of differentiation pupils must be informed as early as possible about the content of courses, and the depth and breadth of their subject matter. Thereafter, pupils should be allowed initially to take the course units of their choice. After a period of tuition it will be clear whether or not there is a need for organizational differentiation or a regrouping of the pupils in an individual subject.

The grouping of pupils must take place after consultation between pupil, parent, teacher, counsellor and headmaster or headmistress. Teaching considerations require that schools have considerable authority to decide in the final instance about grouping, and to which group or class the individual pupil is to belong.

By means of organizational differentiation the classes or groups may be fixed for part or the whole of the school year. Under appropriate conditions pupils must be able to transfer from one group to another. Co-ordination of the same subjects on the timetable will facilitate organizational differentiation. By the co-ordination on the timetable of different years' courses in the same subjects, we endeavour to enable pupils to repeat certain subjects, even though they may have continued to the next grade in the majority of subjects.

It will be necessary to practise differentiation in different ways, depending on conditions in the individual school. It is important that schools take pains to find flexible solutions which will meet their own individual requirements.

Tuition must also be arranged so that, no matter how they are grouped, pupils may progress as far as their capacities allow. It is important that differentiation is practised in such a way that the togetherness and solidarity of the

class or group does not suffer. Differentiation must therefore be applied with prudence and understanding on account of the human factors involved. The consequence of a great need for differentiation, on account of considerable individual difference between pupils, will be either to group pupils in such a way that common teaching is meaningful, and/or the employment of working methods which may profit from these individual differences.

For the very reason that, as a rule, it is easier to reorganize the pupils than working methods we must work conseciously to develop working methods and teaching aids which make it possible for larger groups of pupils to live and work together, in spite of their cosiderable individual differences.

A number of pupils will have need for special tuition, on account of different disabilities. This will require special pedagogical measures, which must have breadth and variation in areas of tuition, choice of subject matter, methods and organisation. Various organizational arrangements may be applicable. Help in certain subjects or disciplines will suffice in the case of some of these handicapped pupils. Within the perimeter set for the class, this help may often be given in the form of remedial teaching for individual pupils. Alternatively, it may be appropriate to organize special groups for a number for pupils with the same tuition needs. In some cases this help will be a question of special methods, while for others it will be more a question of special aids or special equipment. A number of pupils will, however, need more extensive help. Here special tuition arrangements may be required, covering a whole subject range and extending over one complete school year, or longer. Such special classes can be organized partly in conjunction with normal schools and partly in special schools.

According to paragraph 11 of the act, special tuition will also include further education provided in addition to other forms of help in social and medical institutions, ordinary hospitals, and in the form of special tuition at home or tuition given during training at a place of employment. Here there will also be a need for both individual and group tuition.

A distinction may be made between the following forms of help:

1. Differentiation on account of the spread in the pupils' capacities.
2. Remedial periods in individual subjects or disciplines, in conjunction with tuition in normal classes.
3. Groups from a year's course receiving full special tuition in individual subjects.
4. Special classes receiving complete special tuition in all subjects, at ordinary schools.
5. Tuition in special schools.
6. Tuition in social and medical institutions.
7. Tuition during training at the place of employment.
8. Tuition at home.

What is genuinely special tuition for the handicapped is covered under points 2-6 above. Tuition during training at the place of employment and tuition at home are forms of tuition which any pupil may have need of. For many handicapped pupils, however, alternation between practice at a place of employment and tuition at school, possibly at the place of emplyment itself, will be an appropiate form of tuition.

The act draws a distinction between "internal" and "external" special tuition, and points 5 and 6 cover the "external" measures.

6. SUBJECT MATTER AND WORKING METHODS

6.1 The School's objectives and its tuition

In chapter 1.1, the objectives were discussed that the school seeks to attain through all its activities. In the syllabuses, an attempt has been made to show how these goals may be attained through tuition in the individual subjects. The objectives themselves express which values should be given priority in school work. Through tuition one should try to make these values concrete, explain and justify them, but not seek to influence opinion, still less apply pressure.

The upper secondary school will have an intake of pupils from every stratum of society and from homes with very different attitudes to life. Parents must be able to feel confident that the pupils are receiving an education which is both comprehensive and impartial. This applies particulary when dealing with controversial questions of attitude to life, ideology and contemporary politics. Differing views should be balanced against each other, so that pupils may draw independent conclusions in such questions. The school's function should be to present objective material as a basis for the formation of opinions.

The school has not only to pass on knowledge in the traditional sense. It must also strive to bring about greater social understanding and contact between different working environments, and teach the individual pupil to see his own activity in a wider perspective. In schools with several areas of study, offering different special lines pupils will come into direct contact with a whole range of subjects, trades and professions.

6.2 Subject matter

It is the task of the upper secondary school to propagate different kinds of knowledge. On the one hand, the range

includes a strong element of general subjects with long traditions in our culture. These are often, somewhat vaguely, termed "theroretical subjects". On the other hand, we have the many and various vocational subjects. For these, our source of knowledge and information lies in working life. The vocational subjects have, again, differing elements of practical and theoretical matter, varying according to the different subject areas.

The subject matter presented to pupils in the upper secondary school will be varied and diversified. This is because the individual courses are built up of many different subjects, because it must be possible to assimilate the subject matter in different ways, and because the opportunity to choose alternative material within a subject is now greater than before. Subject matter must be chosen with the school's fundamental values in mind, the goals it is aiming for, and the objectives of the individual areas of study, the individual subjects and the individual pupils.

Our democratic tradition assumes an ideal of equality between man and woman, between social classes and geographical areas. A more active effort should therefore be made through the subject matter to counteract social prejudices and discrimination.

In a time of increasing international contact in every area, it is important that subject matter should provide pupils with objective information about other nations and forms of culture different to our own. It is at the same time important that the subject matter of those subjects which permit it should be moulded in such a way that the cultural environment is strengthened locally, and the pupils' local ties are also strengthened.

In the statement of objectives (§ 2) the Further Education Act cites understanding of ecological questions as one of the aims of tuition. Ecological points of view should be particularly stressed in social studies, science subjects and vocational subjects.

The upper secondary school must prepare its pupils as members of the working and the social community, as well as provide a basis for further education. Subject matter must therefore be ordered in such a way that the pupils' general ability to study is strengthened. In tuition we should seek to encourage the pupils' ability to read and understand, to communicate insight and opinions, and to carry out tasks at their jobs. As far as possible, subject matter should permit pupils to work independently. It should also provide meaningful information and instruction in those subjects or fields they wich to study.

Since great emphasis is laid on the character-building effect of the pupils' endeavours with their subject matter, the demand for corporate knowledge will, of necessity, be reduced. It is important that subject matter is a part of our national culture. But it is of equal importance that this same subject matter captivates the pupils' interest and that they see in it a challenge, activating them to thought and effort.

One should try to accommodate the pupils' interests and aptitudes in tuition. In many subjects pupils will have to work with different material, both in quantity, content and means of presentation. Within the individual subjects a varied selection of subject matter must therefore be provided. In the demands it makes on the pupil and in its form subject matter must be adjusted so that the individual pupil may work with material that is comprehensible and meaningful to him.

Choice of subject matter must stimulate a varied use of working methods. This requires a reduction in quantity of the subject matter the individual pupil is to cover, to the extent that it is possible to employ working forms such as group work, independent study, discussion, excursions etc..

The subject syllabuses in this curriculum are to be regarded as a basic framework. This means that they are so comprehensive that a selection must be made, both for the individual class as a whole and for the individual pupil. Even though the perimeter is broad this should not prevent teachers and pupils from venturing beyond the recommended subject matter when the need arises, and when the choice is pedagogically well founded.

The pupils' and teachers' freedom to choose their own approach will, of course, vary from subject to subject. The opportunities for choice which exist should, however, be made use of where this is possible and desirable. Pupils should take part in discussions on the choice of subject matter to the greatest possible extent.

In vocational subjects, practice in the basic skills needed at work and instruction conditioned by time and situation may both be required. In such cases emphasis should be laid on the general qualifications needed in the job in question. This also applies to the question of adjustment to local training needs.

The subject matter should be chosen and tasks allotted with the goal of furthering the subject in mind. The approaches to problems and working methods characeristic of the subject should emerge clearly. The syllabuses lay down what is to be common core subject matter for all pupils. Since it is of special importance that teaching material should be up to date, we should aim to remove subject matter which is not of current interest.

Quantitively, subject matter is so extensive today in all subjects that considerable restrictions must be made in the topics and tasks included in the upper secondary school's tuition. At at time when information is readily accessible and young people are tempted to operate with large amounts of information at a superficial level, it is important that the school should restrict and adjust subject matter so that pupils have the opportunity of approaching their tasks in depth. In limiting the quantity of subject matter, we should try to adhere to the following guiding principles: the choice of material should not result in the fragmentation of detail, which, with other information necessary to the acquisition of insight and understanding, should be given preference; similarly, priority should be given to material which may help to throw light on central areas of the subject; as far as is possible, pupils must receive some knowledge of research methods and developments within the subject.

Because of the specific difficulties in their learning, a number of pupils at the upper secondary school will require special pedagogical help. These learning difficulties may be related to medical, psychological or social factors resulting in different forms of handicap: various disabilities or defects of the senses, as well as problems in speech, reading or writing.

Other pupils may be more generally retarded and require special pedagogical help, since their instructional needs are not adequately catered for by normal teaching methods. For a number of pupils, special teaching methods and material and special tuition programmes will therefore be necessary, while other handicapped pupils will simply require special buildings or equipment. Some pupils will suffer from such serious or extensive disabilities that future vocational prospects will tend towards specially provided permanent employment facilities. It should be possible, by various measures designed to help handicapped pupils to compensate for their disabilities to such an

extent that some of them may finally set their sights on higher education.

Tuition programmes for handicapped pupils in the upper secondary school must have depth, breadth and variation in the areas covered, in their choice of subject matter, in their organisation and in the teaching methods employed.

The auxiliary instruction which may be given in conjunction with tuition in normal classes should be a consolidation of normal tuition, so that pupils are able to follow the normal syllabuses. For pupils whose difficulties in learning are more extensive, special one-year syllabuses are prepared in individual subjects or tuition programmes tailored for special classes. Pupils taking special one-year syllabuses in individual subjects follow the normal syllabus in other subjects. The special classes follow their own tuition programmes in all subjects.

6.3 Working methods

In striving to attain the school's objectives, working methods will be of paramount importance.

The upper secondary school's main tasks include preparation for working and community life and the laying of a foundation for further education. We must reckon on considerable changes in the society we live in during the course of an active working life. It is therefore important that pupils are taught to appreciate that, in the course of tuition, great emphasis is laid on basic and central skills and knowledge and that we are endeavouring to provide them, during the course of their studies, with greater independence in choice of subject matter and working methods.

For many pupils, the transition from what is practical and concrete to more theoretical reading matter provides an excellent means of learning. Even if it will be na-

tural, in some subjects, to emphasize fundamental areas of knowledge, we must not err in this direction, so that teaching becomes too abstract and theoretical, in relation to the pupils' interests and aptitudes, or that they do not feel the natural connection and continuity between their school subjects and the vocation for which they are preparing.

A reasonable balance must be achieved between the need to tailor instruction to work and the community on one hand, and the pupils' independence on the other. In this context, it is important that they learn to seek information from many different sources. In this way, they will be better equipped to form independent attitudes and opinions, based on critical appraisal of the information they receive in and out of school.

One of the school's central objectives is to help its pupils in their personal development. Both pupils and teachers may easily feel that the need to acquire knowledge and skills is placing them under undue pressure. Pride of place may easily be given to activities which yield relatively easily assessible results. Consequently, important aspects of the school's aims and objectives are jeopardized. The way must be openened, therefore, in tuition for personal experience and commitment, for the forming of attitudes and opinions, and the development of social accomplishements. In the more theoretical subjects, too, we must be aware of the value of pupil participation in different types of practical activity. We must also ensure that they have individual opportunity to experience things of aesthetic value.

The school must encourage its pupils in the field of human contact and social co-operation and prepare them to become fullyfledged members of the working and social community - both where decisions are made, and where they are put into practice.

In order that the school may achieve these goals, a strong personal commitment should be fostered in pupils in the actual learning process. Tuition must be planned so that to a great extent pupils may attain insight and understanding by working independently.

As far as humanly possible, the pupils must be given co-responsibility for their school work. They should also feel a responsibility for the other pupils in their class or group: that they profit from and enjoy their school work. Pupils must be given a certain freedom of choice in both subject-matter and working methods; they should also be given the opportunity to work in co-operation with others.

If the desired degree of pupil commitment is to be achieved, pupils must be given ample opportunity of working independently, in a group or on their own.

Whether or not organizational differentiation is practised differentiation within the framework of the individual class will still be both desirable and necessary. Greater or smaller sections of the class will have to work, to some extent, on their own, while the teacher works with the remainder. In schools where emphasis has been laid on the development of an independent spirit in the pupils, this will present no problems. It may, however, be difficult to achieve in practice.

In seeking to solve problems of differentiation within individual class parameters, it will be possible to utilize teaching programmes in certain fields, in practical as in theoretical subjects, in which pupils may instruct themselves and assess their own level of attainment. In other areas, so-called "projects" will be more appropriate. The main emphasis here is not on self-instructive subject matter, but rather on working independently with material which has not been specifically prepared in advance. This will be a great help in enabling pupils to find their

own niche and their own special field of work. In such flexible programmes, there will be ample room for individual differences. Pupils must not only be presented with ready-made solutions, but also have the opportunity to formulate and work with central problems or themes within a field of study.

Working methods must be chosen according to the puils' abilities and aptitudes. Their general level of maturity, their ability to utilize various working methods and their interests should also dermine the teacher's choice. The tuition time available and the way in which it is organized will also play a role here, as will the extent and quantity of subject matter. The same applies to the aids available in the structure of textbooks, and the individual teacher's experience of different working methods.

The nature of the subject matter will aslo be of critical importance in the choice of wokring methods. For example, the teaching of small details and the learning of simple skills clearly require a different approach to inculcating into pupils the ability to interpret and analyse complex and difficult problems. While the main emphasis in elementary foreign language teaching will be on learning small details, elementary structures, words of frequent occurence and on skills (good pronunciation), in social studies, in addition to basic knowledge, insight and analysis will be stressed, as will the forming of attitudes and opinions. Within one and the same subject, there are also different types of subject matter to work with.

While the learning of quantitative symbols in mathematics, for example, is typical of the learning of detail, the discussion of mathematical functions will require the application of principles which have been learned.

In practical vocational subjects (job techniques), this alternation between the acquisition of skills and tasks requiring insight, understanding and independent evaluation will be a particularly prominent part of the teaching programme.

The fact that a teaching programme is based on the solution of various problems does not, of course, imply that the learning of details and the acquisition of basic skills will be neglected. They will, in fact, be given a more meaningful context if such methods are adopted and it will be easier to capture the pupils interest.

The teacher will play a leading role in the choice of working methods. Tuition should be arranged in such a way that provision is made for the varied use of different working methods. It is the teacher's responsibility to put these options before the pupils and to encourage them to try different approaches. An intensive effort must be made, both locally and in the central administration, to create the conditions to provide this choice. Our point of departure must be that teachers and pupils together are given such freedom that a real opportunity to choose working methods is open to them.

6.4 Planning and co-operation

If working methods conducive to a more personal and active pupil commitment are to be integrated in tuition, meticulous planning, in which both teachers and pupils participate, will be a prerequisite (see 6.7 "Pupil/ Teacher Co-operation" below).

6.5 Co-operation within a single subject

In most subjects, close collaboration between those teaching the same subject will be natural. This co-operation will enable teachers to develop better tuition programmes;

teamwork will ease the individual burden here. If tuition is organized in parallel classes in a given subject, teachers in that subject in the different classes will be able to join forces in planning the programme. Partial regrouping of classes will facilitate suitable differentiation.

6.6 Co-operation across subject boundaries

In the search for fitting tasks for the pupils, it will often be discovered that the traditional boundaries between subjects seem artificial. If any degree of co-operation between teachers across subject boundaries is to be practicable, due allowance must be made for this when the timetable is being planned. Teachers must not only be willing to enter into collaboration with their colleagues, they must have the practical opportunity. If topics which cross traditional subject boundaries are to be dealt with in any depth, this must be taken into account when individual yearly teaching schedules are being drawn up.

From the foregoing, it will be seen that co-operation across subject boundaries must be planned on a long-term basis. The reasons why such planning should be given highest priority include the following:

- Traditional subject boundaries often make if difficult to provide tuition in accordance with the reality pupils meet outside school.

- It is more difficult to acquire knowledge *in vacuo* than knowledge placed in a natural context.

- By placing subject matter in a wider perspective, the pupils' interest will be captivated and they will be encouraged to study the matter further.

- By introducing material from different subjects, pupils will become accustomed to viewing a problem from different angles.

- Important objectives of tuition will be related to the total result of a whole course, rather than an individual subject.

6.7 Teacher/pupil co-operation

It is an educational objective to foster a greater degree of pupil commitment. It is a natural consequence of this that pupils should be drawn into the work of planning. They should participate in the choice of topics to be dealt with. They should also voice their opinions on the order in which these topics ought to be studied during the course of the school year and, to a certain extent, how much teaching time should be allowed to each particular subject. During this planning phase, the options available will, however, be subject to certain restrictions, depending on the pupils' aptitudes and abilities and what teaching aids are available. The teacher should therefore play a leading role in this planning, especially in subjects where the acquisition of basic skills and knowledge is important.

In his evaluation of the subject matter, the teacher will probably conclude that some of it should be obligatory for all the pupils. He will possibly also feel that this common-core basic syllabus should be approached in a particular way. For the remaining subject matter, it will be possible to allow the pupils greater freedom in the choice of topics and working methods.

6.8 Forms of organization

It is important to realize, in planning tuition, that working methods which are well suited to one particular type of subject matter may not be equally suitable for another. Similarly, the choice of teaching aids will depend on the working methods to be adopted. It is useful to start planning course units by considering the subject matter to be dealt with from the following angles:

1. Which areas of this subject matter must the teacher go through with the pupils?

2. Which areas of the subject matter could be covered by the pupils co-operating?

3. In which areas of the subject matter is it natural for the pupils to work independently on their own?

By dividing subject matter as indicated above, it will be possible to organize tuition in different ways.

It will be natural for tuition to be given in classes or large groups when the same subject matter is to be presented to a large body of pupils. This occurs, first and foremost, in the form of lectures, the showing of films or demonstrations. Class tuition, when class numbers are not too large, will enable the teacher to keep a check on what has been gone through and what the pupils have assimilated. It is all too easy, however, to gear teaching to the general level of attainment in the class or large group. We must be prepared for a considerable spread in the range of aptitudes and interests in the upper secondary school. This will render it difficult to cater for the individual pupil at his or her own level of attainment.

The class, in the traditional sense, clearly offers certain social advantages. The individual pupil may, for example, experience a feeling of solidarity with a large group of fellow pupils through this class contact. The class will therefore be an appropriate form of organization for the fostering of a sense of corporate responsibility and a feeling of solidarity. A prerequisite here is that ample opportunity exists within the class for social contact between pupils.

Group work will be appropriate when pupils are to collaborate with each other. This form of organization usually implies that pupils co-operate over the discussion and solution of a given problem. The teacher's function will chiefly be to get work started and to give guidance while it is in progress. The division of pupils into fairly small groups will probably be a relatively frequently used form of organization in the upper secondary school. This applies particularly to subjects within the special areas of study, and to optional subjects.

Work in small groups will be of special value in the pupils' social development, for they learn to co-operate with others and to assume the responsibility not only for their own learning, but also for that of their fellow pupils. They may also learn working methods which will be of use to them in their later participation in, for example, trade union or political activities.

In their group work, pupils will come face to face with different modes of behaviour and differing opinions, compelling them to see themselves in relation to others. Thus, a foundation may be laid which will condition their conduct towards others based on mutual respect, solidarity and fellow feeling.

In planning tuition, we should strive to encourage the acquisition of knowledge by solving problems in co-operation.

Administratively, the school ought to promote the use of group work by making room for such activities on the time table and by providing longer, uninterrupted working sessions.

6.9 Individual work

Since the school must help its pupils to realize their potential, they must be given ample opportunity of working at individual tasks. Individual work is also necessary, as pupils are thereby trained to work independently. Individual work implies that the pupils become less dependent on the teacher in choice of both subject matter and working methods. Pupils may work individually when placed in large groups, where they can be given help and guidance by teachers or by fellow pupils, or on their own - at school or at home. In many subjects, e.g. vocational and aesthetic subjects, most of the pupils' work will be on an individual basis.

Pupils should do some of their individual work in the more theoretical subjects outside organized teaching hours,

and they should be given some tasks which lend themselves to private-studies. To improve the pupils' facilities and opportunities for working on their own, it should be possible to keep both classrooms and pupils' libraries open throughout the afternoon and on free days. In many cases, when working independently thus, it will be a great advantage for pupils to help each other. They should be encouraged to do so.

As far as organization is concerned, perhaps the simplest solution is to place some of the individual work outside compulsory teaching hours. However, individual work must also be incorporated into organized teaching, e.g. by allowing pupils time off to work further with the subject matter being dealt with in class, or by giving them greater freedom in their choice of topics. Seminar groups can be formed (smaller units than normal classes), in which pupils work independently for some of the time on collective or individual topics. Alternatively, individual programmes on a larger scale may be devised.

Individual schools may also give pupils an even greater range of options by allowing them individually to work their way through subject programmes independently, or with the help and guidance of teachers or fellow pupils, e.g. in correspondence courses. In such cases, the teacher's role may be to come to the pupil's aid with advice and, to some extent, to see that syllabuses are adhered to.

Principally, the teacher's role in individual work will be the same as in group work: to collaborate with the pupils in finding suitable tasks and exercises; to give them help and guidance in their actual work; and to assess the work carried out. It is important that the teacher should guide his pupils to a critical appraisal of their own work, thus easing their path towards better and more effective working methods.

6.10 Block tuition

Even if the timetable is drawn up with a fixed number of

weekly periods allocated to the different subjects, this does not mean that it must by adhered to rigidly. The principle here must be that total teaching time during the course of the school year is in accordance with the subject/period allocation of the timetable.

Block tuition may be employed to prevent the extensive splitting up of teaching in many subjects. It will be particularly appropriate in areas where, because of the nature of the subject matter, regular instruction is not necessary, e.g. religious instruction; the small optional subjects in the mathematical and social sciences; and, perhaps, most particularly within the range of aesthetic subjects. If pupils have fewer subjects to concentrate on at the same time, their opportunities for study in depht will be proportionally increased. For most pupils this will mean an improvement in tuition. A greater concentration of lessons will have a similar effect. An extended use of double periods (or triple periods) will be particularly desirable in social studies and aesthetic subjects.

Larger periods of continuous tuition may be practicable in certain vocational subjects. Tuition in the two-year foundation courses might conceivably be divided in various ways. Periods of more concentrated vocational instruction (e.g. 4 weeks) will probably by appropriate in some lines of study. In other lines, short sessions in vocational subjects every day or some days each week (e.g. 3 hours per day) will be suitable. All in all, one should not feel too rigidly committed to any one way of organizing the school year.

6.11 Excursions etc.

In some subjects, such as social studies and natural sciences, there will be a need to devote some of the teaching time to visits to institutions and firms and also other forms of excursion. This is another reason why the subject/period allocation of the timetable should not be adhered to too rigidly. An overall long-term plan of excursions and visits

should be drawn up, covering, for example a whole school year. It is, however, a requirement that such visits and excursions in any subject must be organized within the parameter of the total time allocated to that subject on the timetable.

6.12 Abstract/concrete tuition

In many subjects, tuition has been based on the study of textbooks. This method has favoured those pupils who read fluently, have the ability to think in abstract terms and who can master the terminology used in the different textbooks. If tuition is based too unilaterally on the study of textbooks many groups of pupils will experience unnecessary difficulties. We should aim at tuition which is concrete and in touch with reality for all types of pupil.

The type of instruction that gives pupils the opportunity to gain insights and make abstractions on the basis of their own observations and experiences and in conjunction with practical drills and practical work will, in many cases, be valuable. Pupils will find it easier to acquire knowledge and skills if their instruction is given a tangible and realistic form. Aspects of society outside school should therefore be directly incorporated into tuition to a greater degree than previously. Excursions and study visits should be utilized where appropriate. The varying conditions in the school's immediate environment should, all in all, be given greater prominence and be a starting point for study in greater depth at school. For some pupils, the community outside school will in many cases be the best mentor. It may be practical for many pupils to be placed out at jobs for comparatively long periods of time. This type of arrangement may be of diagnostic value for handicapped pupils, since it will be possible, by this means, to ascertain what lies within their capacities and, thus, to develop more suitable tuition programmes for each individual case.

7. TEACHING AIDS

7.1 The function of teaching aids

One of the principal tasks of all instruction is to provide the pupils with information. This is important because knowledge is a prerequisite to insight and understanding and to the acquisition of skills. If this dissemination of information is to proceed effectively, there will be a need for different types of teaching aid. Every subject syllabus emphasizes the importance of working methods and the vital role they are to play in striving to attain the schools' objectives. It is imperative that the teaching aids employed should help, rather than hinder this work. Teaching aids must therefore provide a basis for the effective acquisition of knowledge and also facilitate the use of more varied working methods. In vocational areas of study machines, equipment and appliances should be in accordance with what pupils may expect to meet in their working lives.

A primary requirement of the pupils' school work is that they should be enabled to work more independently. It is incumbent on us, therefore, to develop teaching aids suitable for individual work.

7.2 Teaching aids as the basis for a more effective acquisition of knowledge

In the role of disseminator of information the teacher is confronted with a difficult choice. The following questions will always arise: what information am I to convey, and how shall I do so?

Since the flood of available information has increased, the first question has become more urgent. The teacher may seek assistance in the form of different teaching aids, but in the various situations in which he is pressed to

make a choice of relevant information he will not always have time to deliberate.

Potentially, of course, there is the danger that the information selected via the teaching aids is not well chosen, e.g. that it is biased. It is therefore important for the teacher to encourage his pupils to judge this for themselves and, if necessary, seek for corrective information.

As far as the question of how information should be presented is concerned, the teacher has few options unless various teaching aids are employed. In general terms, it may be said that variety in methods of presentation is desirable. There is a danger that presentation will be too abstract and take insufficient account of the pupils' conceptual horizons. Pupils should be afforded ample opportunity to learn through various forms of practical activity.

In the propagation of knowledge, information alone is not sufficient. Teaching aids must not speculate in a one-sided conveying of small details: individual facts must be placed in a wider perspective if they are to be of value. Matter should be presented in such a way that it provides the basis for the pupils to achieve a deeper understanding. It is also important that comparisons are made possible between the pupils' range of concepts and experiences and between different subject areas. Pupils may feel a deeper significance in their subject matter if the possible practical applications of the knowledge they acquire are emphasized.

7.3 Teaching aids as a basis for variation in working methods

Variation in working methods is desirable for a number of reasons. In the course of their schooling, pupils must acquire skills of different types which must be learned in different ways. It will, for example, be difficult to master

study-techniques by a purely theoretical approach. If a pupil is to master study techniques to such an extent that they really are of practical assistance, situations must be created in tuition where this assistance may be utilized.

It must be born in mind that great differences exist in the upper secondary school within the group that any one teacher is responsible for. These differences apply to both subject interests and proficiency. If the teacher is to have any chance of providing these pupils with a teaching programme which is differentiated and adapted to their different interests and aptitudes, it is important that teaching aids should be available to make this task of differentiation and adaptation easier. The individual pupil must be prepared to work on his or her own to a greater extent.

From a purely psychological point of view, the use of varied working methods is preferable. Few pupils are able to assimilate fresh knowledge purely by the passive reception of information. They will learn more effectively if a more active commitment is fostered.

Teaching aids must promote this kind of active learning. But this activation must not be achieved by relying on mechanical exercises, such as one has seen in some instruction programmes. It must be based on problems, the nature of which will test the pupils' abilities to make critical appraisals and draw conclusions.

7.4 Teaching aids as a basis for enabling the pupils to work more Independently

One of the principal aims of the school is to help its pupils in their development as independent individuals.

If this is to be achieved, tuition must be planned in such a way that pupils become less dependent on the teacher's constant guidance. With the teaching aids available today,

it is difficult for the teacher to incorporate individual and pupil-controlled work into organized tuition. To provide pupils at smaller schools with as extensive a range of options as pupils at larger schools, it should be possible to adapt study programmes (e.g. correspondence courses) suitable for individual work to group work or to programmes in which the individual work is supplemented by some auxiliary instruction at school. In compulsory subjects, too, it will be of value to develop programmes where, for example, the most able pupils may work through the subject matter, either on their own or in collaboration with fellow pupils. For this reason, too, it will be of value to develop teaching aids based on co-operation and reciprocal help between pupils.

7.5 Effective employment of teaching aids

The teacher who is to organize any course should be fully aware of the teaching aids at the school's disposal and their potential value, otherwise the result will be that little use is made of those aids that are available. Each school must therefore keep an up-to-date catalogue of the teaching aids acquired.

From time to time a critical analysis should be carried out at individual schools of the teaching aids at their disposal, and the use made of them. By this means, it will be possible to gauge how their use can be made more effective and where renewals are required.

8. ASSESSMENT

8.1 Pedagogical assessment

As in other areas of community life, there is at school the need for a constant evaluation of the activity in progress. This evaluation must include the whole range of the school's activities.

At all levels in the school system it is of paramount importance that an appraisal is made of whether the work in progress is in accordance with the school's prescribed aims and objectives, whether the best working arrangements have been chosen and how they might be improved.

The school's primary objective is to help its pupils in their personal development. Particular emphasis must therefore be laid on each individual pupil's work and progress.

One can summarize by saying that assessment has a dual purpose in the upper secondary school. On the one hand, it must form the basis for a critical appraisal of how tuition is functioning as a whole. On the other hand, it must give the individual pupil, his parents or guardians, his subsequent employers or educators in courses of further education and indication as to where he stands in regard to the aims prescribed for school work.

The present chapter is principally concerned with the assessment of the pupils' work. The point of departure for all assessment at school must lie in an analysis of the school's general aims and its more specialized scholastic aims. The task here is to assess the correspondence between the latter and the individual pupil's scholastic achievement. Assessment must be undertaken in such a way that it does not interfere with the school's attempt to attain its objectives.

The objectives of tuition are outlined in the curriculum and the different subject syllabuses. The latter are given as a guide. Each teacher and group of pupils will, to a certain extent, be able to define their own aims in any given subject. The methods of assessment employed should not prevent this.

It is often tempting to identify the aims of any one subject as the memorizing of a certain amount of subject

matter or the completion of a number of drills in a certain chronological order. It is all too easy, in the assessment of achievement to emphasize those aspects of a subject that are easily gradable. This may easily lead to an imbalance in the direction of the learning of detailed knowledge and the acquisition of simple skills. The pupils' capacity for study, the development of their ability to co-operate, to plan and accomplish more demanding projects, their critical faculties - all these are difficult to assess and may, therefore, easily be accorded a less prominent place in school than they merit. It will be difficult to avoid assessment's having an adverse effect on the growth of those very attributes of character one wishes to foster in the pupils, e.g. the development of the capacity to co-operate, a sense of co-responsibility and respect for equality and justice.

Since the actual assessment process tends to lead to a bias towards what is measurable in the school's work, it is important that a conscious effort should be made to counteract this trend. This may be accomplished, in part, by employing methods of testing that demand reasoning and insight, application and perseverance. In working to eradicate some of the unfortunate side-effects of the assessment process, it is, nevertheless, most important that teachers make use of the total experience available of the different methods of assessment. The individual teacher and the individual school must be given help and support in this work.

Work must proceed continuously in the tasks of developing suitable methods of assessment, of clarifying the aims and objectives of each subject, of eliciting information on the use and effects of different forms of assessment and of considering whether the basic intentions of the curriculum and subject syllabuses are being fulfilled. In this connection it is important that the pupils are also engaged in co-operative ventures which must provide balance and direction in the school's work of assessment.

8.2 Methods of assessment

It should be emphasized that assessment is intended, first and foremost, to assist in the task of providing the individual pupil with tuition adjusted to his or her needs.

Assessment must therefore be an integral part of tuition which keeps each pupil continually informed of his or her level of scholastic attainment and the opportunity for corrective. In this way, pupils may receive the help and support in their work that assessment should give.

Within the general framework laid down in the subject syllabuses, tuition should be adjusted to the needs of each individual pupil. This cannot be achieved unless the teacher is well acquainted with his pupils' interests, knowledge and proficiency. It is important, therefore, that as soon as he meets new pupils the teacher should acquire as detailed a picture as possible of these factors, e.g. by means of simple tests. It will be difficult to plan tuition well unless this is done.

In the course of actual teaching, there will be many opportunities to get to know the extent of the pupils' knowledge and their working methods. By conversing with the pupils and by studying their abilities to make use of different types of aid or carry out various tasks, and by observing the behaviour of each pupil in situations where co-operation is required, information may be gleaned which will greatly assist the shorter-term planning of tuition.

By means of conversations it will also be possible to discover the pupils' view of subject matter, working methods and teaching aids of various types.

Written, oral and practical tests have a natural place

in instruction.

Oral testing is invaluable when one wishes to ascertain particular oral skills in the pupils. This kind of testing will give the teacher some idea of their ability to discern between what is, or what is not significant and to consider new knowledge in relation to what has been learned previously. It will be possible to form a clear picture of the pupils' abilities to interpret and analyse. In large groups, oral testing may lead to a passive attitude in pupils and is therefore best suited to tuition in small groups.

There are various ways of constructing written tests, depending on their objectives. When the purpose of a written test is to gain an impression of the pupils' abilities to organize material and argue objectively, tests which invite freely formulated answers will be desirable. In areas where recognition is of greater importance than recollection, tests requiring more restricted answers may, in certain circumstances, be appropriate. There is always a danger, in such tests, that pupils will be encouraged to reproduce small details, and insufficient emphasis laid on other important aspects of the subject.

There will be a need for different types of practical tests, e.g. in aesthetic and vocational subjects. The teacher will, in many cases, need to ensure that the pupils have reached a certain level of attainment before proceeding in his tuition. A combined practical/oral test will often provide a test situation which makes it easier to assess both proficiency and insight.

8.3 Grading

Grading is the usual method of indicating the pupils' level of scholastic attainment.

Assessment in the primary and lower secondary school (basic school) and in the upper secondary school has been

investigated a special committee. After a debate in the National Assembly probably in 1980 - the Ministry of Education is expected to issue new regulations in this field. Until then there will be no changes in the grading system. The present paragraph is therefore based on forms of assessment which have been in use in the upper secondary school. In recent years, most types of school catering for the 16-19 age-group have changed to a grading system employing the numerals 0 to 6, 6 being the top grade.

The individual subject syllabuses are drawn up as a basic framework. This implies that subject matter is chosen by the individual teacher and pupil from within this basic framework without necessarily filling it. It will, of course, only be possible for a few particularly gifted pupils to include every topic requiring study in depth. For others it will be natural to concentrate, according to their abilities and scholastic capacities, to concentrate on fewer areas and study them in less depth. When a syllabus is chosen for the individual pupil, the primary objective must be to arrive at working material and tasks which are compatible with his abilities and interests.

In short, it may be said that grades must be given on the basis of an appraisal of how far each individual pupil has progressed towards the scholastic aims prescribed for any given subject. A pupil who has assimilated every significant aspect of the subject matter and acquired the desired skills while at the same time demonstrating an ability to work independently and effectively should be given the top grade. A pupil who has neither assimilated any of the subject matter nor learned any of the skills or working methods relevant to the subject, while at the same time demonstrating his inability to work independently, should receive the lowest grade.

The requirements for the individual grades on the scale must be determined in such a way that they show, unequivocally, to what extent the individual pupil has acquired the knowledge and skills demanded by the subject

in question.

The requirements for the individual grades of the assessment scale should be roughly as follows:

Grades 6 and 5: The pupil has shown that he has a clear insight into and understanding of the most important aspects of the subject matter. At the same time, the pupil has demonstrated special skills in solving problems and exercises independently, and is well qualified for further courses and to apply what has been learned in concrete real-life situations.

Grades 4 and 3: The pupil has shown a certain insight into and understanding of the most important aspects of the subject matter, and/or has acquired the basic skills. The pupil is qualified for further courses and, to a certain extent, to apply the knowledge and skills acquired.

Grade 2: The pupil has shown a certain insight into and understanding of some areas of the subject matter, and/or acquired such skills that he may be admitted to further courses.

Grade 1: The pupil has acquired a limited insight into and understanding of the subject matter. The skills and proficiency acquired must be considered insufficient to enable him to follow a further course in the subject.

Grade 0: There is no evidence that the pupil has profited from tuition.

In interpreting the requirements of each grade on the scale thus, it is implied that some assessment should be made of the pupils' potential to complete, successfully a further course (or courses) in the subject. Grades 0 and 1 should only be given after conferring with other teachers in the subject at school.

In certain subjects, primarily the traditionally oral subjects but to a certain extent also working techniques, few low grades will normally be given. In written subjects, on the other hand, 3 and 4 have been given more extensively for average performance in individual pieces of work and general level of attainment.

As a guiding national norm, in those subjects in which examinations are held on a national basis, the following distribution should be adhered to:

0, 1 and 2	3 and 4	5 and 6
20%	60%	20%

The national norm applies only to a relatively large body of pupils and cannot be applied directly to the individual class or school. In other subjects, a predominance of higher grades will be natural, now as previously. Official statistics of general level of attainment and examination grades, given on a national basis, will facilitate the greatest possible uniformity of requirements for the different grades on the assessment scale.

For further reference regulation for examinations, grading and reports and school-leaving certificates should be consulted.

8.4 School-leaving certificates and examinations

Regulations concerning the subjects in which grades are to be allotted, how often grades should be given, and regulations concerning public examinations and school-leaving certificates are stipulated in Regulations Concerning Grading, Examinations and School-Leaving Certificates.

9. SOCIO-PEDAGOGICAL MEASURES

One of the main objectives of each individual school must be to strive to build a social and cultural community. The school must be organized in such a way that the greatest possible opportunity exists for everyone to participate in social activities and to develop social attributes. The pupils should experience social equality through the medium of the school's activities - no matter what background they may come from.

The upper secondary school is open to all young people. It should therefore be taken into account that great differences will exist within the school as far as its pupils' interests and abilities are concerned. Puplils who, on account of differing choice of studies, would previously have attended different schools will now, to a far greater extent, be placed in the same schools. Handicapped pupils will have a greater opportunity than before to attend ordinary schools. As before, many pupils will have to avail themselves of school transport, and a number of pupils will have to live away from home - either in private lodgings or at boarding hostels.

To enable the whole mass of pupils, where such great differences and disimmilarities exist, to experience a social and cultural community the school must provide help, advice and stimulation where required.

The pupils are to choose for themselves their area of study, special line and optional subjects. To make this freedom of choice as genuine as possible, it is important that pupils and their parents or guardians receive thorough guidance and up-to-date information concerning the subject content of each area of study and what qualifications the different courses provided give.

If the upper secondary school is to be a good school for all concerned, great emphasis must be laid on the well-being of the individual. This must be a guiding principle in the school's scholastic work. It is, however, of equal importance

that the school, both in and out of school hours, should promote ventures which foster well-being. This may well be accomplished in conjunction with the community in the school's immediate locality.

Social and cultural togetherness, the greatest possible genuine freedom of choice of subjects and courses, as well as the well-being of the individual pupil: these are the factors which should naturally occupy a central place in the consciousness of each individual teacher and give his or her work direction. It is an integral part of the teacher's job to give advice to individual pupils and their par ents or guardians.

An important prerequisite for the individual pupils' choice of area of study, special line and subject is that they receive the best possible guidance beforehand. It is therefore important that upper secondary schools co-operate, on a regional basis, with both county labour exchanges and with lower secondary schools on questions of career-counselling.

An extensive need will, again, exist within each upper secondary school for individual counselling or questions of choice of special line of study and subjects, as well as opportunities for further training at work and at other schools.

The school should also be able to provide help for those pupils who have problems in adapting to working life after completing their schooling.

Welfare work within each school aims at creating well-being for all who belong to the school community. There will be a need for a special welfare service, especially at large schools and at schools where a large number of the pupils are dependent on school transport or must live away from home during their schooling. Pupils who are dependent on school transport usually have little opportunity to mix with their fellow pupils out of school hours. In such cases one must strive to give all pupils, wherever they live in relation to the school, as far as possible the same opportunity to participate in social activities, organizations, clubs and teams

connected with the school. In this connection the organization of school transport, the organization of the school year and the school day and the organization of the school canteen will fall within the area of responsibility of a welfare and liaison counsellor.

Liaison work must aim to establish and maintain active co-operation between the whole of the school staff and its pupils, and between pupils internally.

The teacher responsible for this work of contact and liaison must work with the other parties and sections of the school community to develop an atmosphere at school in which the pupils participate actively by sharing in decision-making processes. He must also help to define areas in which this may be achieved, generally contribute to the viable solution of problems in various areas of collaboration within the school community and support and assist pupil organs and institutions in their work.

The school must help individual pupils to master new situations in the best possible way, according to their aptitudes and abilities. Those engaged in the school's personal counselling service must endeavour to create conditions in which the pupils may experience personal fulfilment, develop independence and an active attitude to the tasks with which they are confronted.

The pupils will need help in adjusting socially to the school environment and in solving the problems which arise in their relationships with fellow-pupils, teachers, the administration and par ents or guardians. The counsellor must strive to establish positive co-operation in his work, so that he may provide pupils and their parents or guardians the best possible information concerning the upper secondary school.

A particular concern of the school's counselling service should be the best possible integration of the handicapped into the school community.

The school must therefore familiarize itself with the physical, mental and social aptitudes and abilities of its pupils. It must also help them to gain insight into their own abilities and aptitudes and the courses of instruction available to them.

It is not the job of the counsellor to deal personally with such problems, but he or she must appraise the need for special auxiliary measures and contribute to special pedagogical and socio-pedagogical ventures for those pupils in need of them.

As regards the building up of social functions in handicapped pupils, there may also be a need for special accomodation and leisure facilities, individual economic support schemes or other similar auxiliary measures. Such ventures represent a real challenge to the welfare-services of the upper secondary school.

An important prerequisite to special pedagogical endeavours is that both teaching and consolidatory measures should be planned and put into practice on the basis of an overall appraisal of the pupils' needs and capacities. The counselling and help which pupils need in conjunction with their choice of subjects and their differing scholastic and social problems should, as far as humanly possible, be an integral part of the sum total of the school's activities. For a number of pupils, particularly those with serious individual handicaps or a series of handicaps, close co-operation between schools, the public health and national insurance services, rehabilitation institutions and country departments of employment will be essential.

If the objectives which have been broadly outlined above are to be achieved, extensive collaboration will be required between all those who work at indivual schools. Further, co-operation between schools, between the school, the local community and the economic life of the district will be essential.

Giving advice and guidance will be a natural part of every teacher's daily work at school. The individual teacher cannot, however, be expected to be able to solve the more complex and comprehensive type of problem in addition to his or her normal teaching duties. It is conceivable, moreover, that some pupils may wish to talk over their problems with some other person than their own teacher. Ir is therefore necessary that the more comprehensive work of advice and guidance should be attended to by the school's own special counsellors.

This advisory service should be arranged and adapted to suit the needs of the different areas of study allotted to the school.

It will, as a rule, be possible to allocate the socio-pedagogical services to one or more teachers. The teacher or teachers in this special advisory capacity must assist the pupils and, in collaboration with the headmaster or headmistress and the rest of the school staff, work to find solutions to the social and pedagogical tasks and problems of the school. All those in advisory capacities at school must be subject to the usual rules of secrecy and silence in confidential matters.

Naturally, the need for socio-pedagogical endeavours will vary from school to school. The arrangement of the socio-pedagogical covered by the basic timetable for the individual school will be decided by the school committee.