

MINISTRY OF EDUCATION AND SCIENCE
CENTRE FOR CURRICULUM DEVELOPMENT AND EXAMINATION

NATIONAL STANDARDS OF COMPULSORY EDUCATION



MINISTRY OF EDUCATION AND SCIENCE, LATVIA
CENTRE FOR CURRICULLUM DEVELOPMENT AND EXAMINATION

Approved
by the Ministry of Education and Science
on April 30, 1998

**NATIONAL STANDARDS
OF
COMPULSORY EDUCATION**

1998

TABLE OF CONTENTS

Education in a Changing World	3
Introduction	4
The Goals and Main Objectives of Compulsory Education	7
General Didactic Principles of Compulsory Education	8
The Contents of Compulsory Education	10
Learning Outcomes for Students Completing Grades 3, 6 and 9	16
Fundamentals and Procedures for Evaluating Student Progress	28

EDUCATION IN A CHANGING WORLD

We live in a period of rapid change. The restoration of Latvia's independence and the development of a democratic society with a free market economy, one that has begun its social integration process and is oriented towards the European Community, demands a shift in educational focus. It is the students who are currently studying in Latvia's schools who will live in and shape the society of the 21st century. The unity and diversity of the global economy, culture and technology, and the transition to an information age are both modern trends. It is essential therefore, that Latvia's younger generations are effectively prepared for life in a complex and changing present and future world. Without dispute, the major guiding prerequisites for this preparation is the quality of education attained by students, and their readiness to undertake lifelong learning.

In the 16th verse of the legislative project regarding general education, it is stated that: "The educational standard for each academic level and course determines: 1) the goals and main tasks of each educational program, 2) its obligatory contents, 3) evaluation principles and procedures."

The National Compulsory Education Standard is a national and politically endorsed document which outlines the contents for reform by the year 2005. The guiding principles for this educational reform, as envisioned and outlined in the document are:

- a changed focus from the acquisition of information to the application and utilization of information
- a practical orientation, accenting functional knowledge and skills
- the integration and correspondence among subjects to avoid overload, duplication and discrepancy

Although subject standards have been introduced and implemented in Latvia's education system since 1992, the National Compulsory Education Standard which encompasses an entire academic level, is the first document of its kind in Latvia. It has been in development for two years. Basically, it is comprised of three independently-established projects and has been both debated and refined in various audiences and therefore, it can be affirmed that this document reflects the point of view of noteworthy members of Latvian society of what encompasses a good, contemporary compulsory education. At the same time, the National Compulsory Education Standard is a nationally-approved and refined strategy.

Minister of Education and Science



J. Gaigals

INTRODUCTION

Compulsory education is defined here as the level of formal, organised education in which:

- an integrated self-identity is formed and developed;
- the individual prepares himself/herself for future secondary and/or professional education and becomes a life-long learner; and
- the knowledge, attitudes and skills necessary to both society and the individual are acquired.

An integrated person is able to co-ordinate personal and societal needs, and receives satisfaction from them both, is aware of the deeper meaning of his/her life and, without losing his/her reference points in a rapidly-changing world, is himself/herself able to adapt to and even initiate change. He/she is able to meld personal desires, needs and opportunities with those of others. The development of an integrated self-identity requires attention, and a balance of the mental and physical, the intellectual (mind), emotional (feelings) and free will, must be promoted.

Individual or personal life is the inner world, consisting of opinions, beliefs as well as an awareness of the meaning of one's existence. Each individual has value which needs no social justification. The individual is first and of primary importance in regards to society. The goal of education is to reiterate this principle which is fundamental to any modern democratic society and is reflected in the Convention of Human Rights.

Public life is the totality of human relationships which form and constitute the social institutions and systems directly affecting every member of society. It consists of the political, the economic and the cultural. These spheres develop in a way that is appropriate to recognised operations and needs.

General principles of compulsory education

Unity. Education, including compulsory education, is integrated: the autonomy granted every school does not preclude unified state standards, commonly-defined goals and objectives, mandatory contents and basic values. The transition to a language of unification – the Latvian language – is gradually being implemented in Latvia.

Basic Education. Compulsory education is the basic level of education which is mandatory and guaranteed to every individual in Latvia.

Universality. The contents of compulsory education reflect universal human experience and cultural values, and compulsory education is necessary to every individual, regardless of future professional specialisation and interests.

Equality. Compulsory education is guaranteed to every individual irrespective of his/her ethnic, social and/or religious affiliation. Children with special needs are ensured equal opportunities to acquire this level of education.

Integration. All the goals and main objectives of compulsory education are linked and may be achieved only through the co-ordinated activity of all educators.

Sufficiency. The acquisition of a compulsory education is of fundamental necessity to ensure every individual a well-rounded life and future educational opportunities.

The *National Standards for Compulsory Education* document outlines the goals and objectives, mandatory contents and sequence, and the fundamental evaluation principles of one level of basic education – compulsory education. Schools may design their own syllabus to reflect local conditions and needs and select various methodologies to implement their modified contents; however, every student must be provided with the opportunity to acquire core knowledge as stipulated by the *National Standards for Compulsory Education*.

The main objective of the *National Standards for Compulsory Education* document is to provide key concepts for those professionals who are responsible for designing localised school syllabus and for selecting modified educational contents.

At the same time, this document is indispensable to:

- individuals working in a school, in order to provide clearly-defined tasks and directives in the organisation of the educational process;
- curriculum writers and implementers, in order that they may link and integrate as well as provide an appropriate transition between the levels and stages of further education institutions and programs;
- teacher educators working in both pre-service and in-service professional development programs which are designed to prepare teachers as well as to improve their professional qualifications;
- parents, by providing clear and accurate information on what their children should know and be able to do, and the actual outcomes achieved;
- government representatives and the wider public, so that they may be able to evaluate and monitor the quality of education being offered students, and to propose any necessary changes;
- the authors and publishers of educational materials (manuals, study aids, etc.), so that produced materials reflect current learning theory; and
- developers of assessment tools, so that they can develop interesting and effective examinations which clearly and accurately indicate student achievement.

The structure of the contents of compulsory education

The *National Standards for Compulsory Education* includes a description of the basic and obligatory contents of compulsory education. These contents must be included when planning content for each separate school subject in various educational programs, and opportunities to acquire them must be provided.

Two key elements are used to describe the contents of this document:

- educational components
- educational spheres

Both of these elements demonstrate what knowledge, skills and attitudes students must aspire to, and how teachers can help students develop these within the prescribed learning process. The first reflects general skills and abilities or the instrumental aspect of education. The second is the informative, and outlines educational directions or trends. Both elements are combined in the main objectives of compulsory education. In the description of obligatory contents, both elements are separated in order to emphasise the necessity of paying special attention to the development of general abilities and skills of students. In pedagogical practice, both elements—the informative and the instrumental—are integrated, forming a unified whole.

The contents of compulsory education consist of seven components:

- 1) Creativity and self-expression
- 2) Analytical and critical thinking skills
- 3) Evaluative (moral and aesthetic) skills
- 4) Social (co-operative) skills
- 5) Communicative skills
- 6) Mathematical skills
- 7) Learning skills and practical application

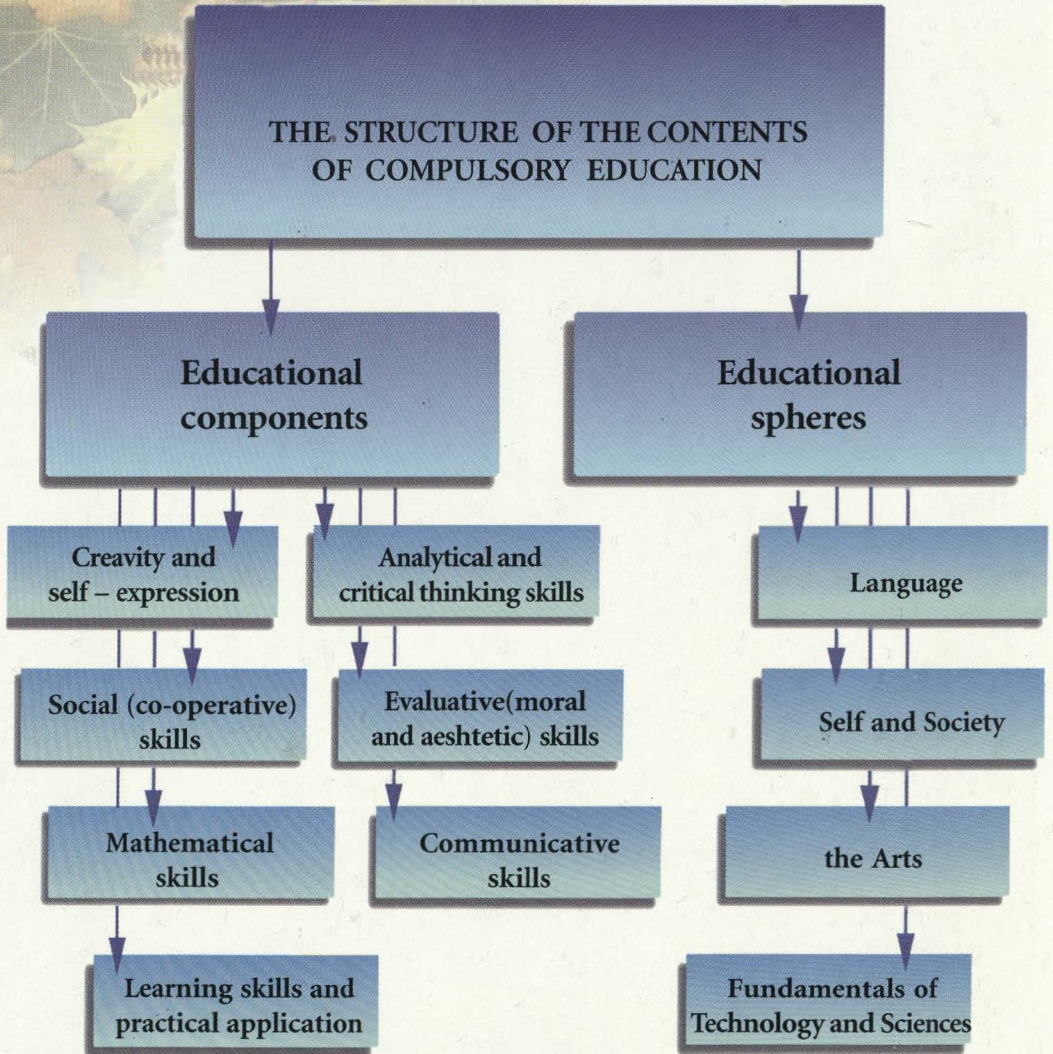
The four educational spheres are:

- 1) Language
- 2) Self and Society
- 3) the Arts
- 4) Fundamentals of Technology and Sciences (Natural Sciences)

(see TABLE 1. "The Structure of the Contents of Compulsory Education" on page 6)

The description of educational contents concludes with a list of the expected learning outcomes of students completing grades three, six and nine. Student achievement should reflect the most significant knowledge, skills and attitudes acquired, and should demonstrate gradual progress in the academic level of students.

THE STRUCTURE OF THE CONTENTS OF COMPULSORY EDUCATION



THE GOALS AND MAIN OBJECTIVES OF COMPULSORY EDUCATION

GOALS

The goals of compulsory education are:

- to encourage the harmonious formation and development of every student's self-identity;
- to promote students' sense of responsibility towards themselves, their family, their community, their nation, their native land, and towards all peoples and the highest moral values;
- to develop the foundations for further education; and
- to ensure the acquisition of the knowledge and skills necessary for personal and public life.

OBJECTIVES

In accordance with the goals of compulsory education, its main objectives are to provide every student with the opportunity:

- to learn to understand, to examine and evaluate his/her abilities in different spheres and to develop those according to personal aptitudes and interests;
- to gain experience in creative activities;
- to develop communicative and co-operative skills;
- to form a positive attitude towards himself/herself and towards others, as well as an optimistic attitude about his/her life and the future;
- to develop self-control and self-discipline;
- to acquire the basics of emotional intelligence;
- to learn the fundamentals of Latvia's, Europe's and the world's cultural heritage, and to develop his/her personal cultural identity;
- to cultivate a tolerant attitude towards those with different belief systems and lifestyles yet, at the same time, understand the necessity of taking an active stand against cynicism and other moral ills;
- to develop the ability to evaluate and appreciate beauty;
- to gain an understanding of and formulate an opinion about principal natural and social processes; and
- to acquire basic language, mathematics, information technology, and general learning skills.

GENERAL DIDACTIC PRINCIPLES OF COMPULSORY EDUCATION

THE SCHOOL ENVIRONMENT

A favourable school environment and warm classroom climate are conducive to successful learning

The psychological and moral atmosphere which permeates the school environment and defines interpersonal relationships on a daily basis, perhaps indirectly but nevertheless significantly, affects student motivation and the quality of work and is therefore of great educational value. Collegiality, co-operation, and mutual respect; trust and kindness amongst administration, teaching staff, students and parents; a teaching and learning environment which fosters students' self-reliance and independence; one which provides a favourable and optimistic classroom atmosphere; one which provides a sense of safety and security; one which supports risk-taking where making mistakes is viewed as an important step in learning; all these components are significant preconditions for successful teaching and learning to take place and serve as an example for the development of interpersonal skills and for values education.

THE INTEGRATION OF THE TEACHING AND NURTURING

Learning is more than the acquisition of knowledge and the development of skills. Value education plays an equally important role in the development of the student

The contents and process of teaching and learning cannot be value-free. They are generated by both educators and developers of learning materials with distinctive value orientations. This is inevitable. Most importantly, the school and teachers must promote an awareness of this situation, and help students learn how to critically evaluate the information given them, and how to formulate their own independent judgements.

Teachers must bear in mind the fact that students bring prior experiences with them to school, be those experiences social, ethical, religious, traditional to their families, gender-related etc. These differences should be taken into account by teachers for two reasons: first of all, only an open-minded attitude allows for a humanistic values education and secondly, effective learning can occur only when it is linked to the daily life and prior experiences of the student.

Values and opinions are acquired and formed through both direct and indirect communication and when in contact with others. Both subject area teachers and homeroom teachers/advisors as well as other staff members can and should contribute to values education.

The school must respect the constitutional rights of parents in regard to educating their children such as the choice of religious affiliation, for example. For this reason, co-operation between home and school in this process of developing values and opinions is of utmost importance.

INDIVIDUALISED APPROACH

Learning is an individualised process

Each student is a unique being with distinctive interests and abilities, temperament, medical conditions and learning style. Each has his/her different needs and motivation for learning. Motivation will increase if teachers are able to recognise each student's uniqueness, maturity level and perceptual abilities.

Taking all these into account may complicate the teacher's task yet it is an important precondition for effective learning and teaching to take place. It is the teacher's responsibility to attentively and with sensitivity study and follow each student's developmental dynamics, to select effective teaching methodologies, to devote the necessary time to each student and to provide the support and assistance necessary to achieve the stipulated educational goals.

PROBLEM – SOLVING APPROACH

Students learn best when linking the known with the unknown by asking questions and independently finding answers to their questions.

When learning, one strives to comprehend daily processes, one experiments and investigates, attempting to link new information with that which is already known. The learning process should provide students with opportunities for independent inquiry and self-discovery, allowing students to search for and observe links between events, objects and phenomena by themselves. The teacher's task is to assist the student in formulating appropriate questions and finding answers to those questions by making use of various research skills. Students need help to be able to see and understand the link between new information and their daily lives, their families,

friends and community. This requires notable changes in the organisation of the learning process. Priorities must be reconsidered and more time and resources should be devoted to independent learning projects.

MATCHING ABILITIES WITH DEMANDS

Although teachers must place high demands on student performance, they must correspond to each student's abilities.

Students learn best when they are required to solve a task which requires them to put forth some effort and progress to a higher level of knowledge and skills. Tasks must be challenging and promote growth and development.

THE ROLE OF THE STUDENT'S PRACTICAL LIFE EXPERIENCE

Learning is based on the practical life experience of the student.

Students, particularly those in the earlier grades, learn better when the acquisition of knowledge and skills is based on the familiar and the relevant, and is related to their daily lives. This is a natural consequence of a child's thinking process and world view. Children are initially only interested in those things that are of practical use, that allow them to separate themselves from the unpleasant, the dangerous or harmful in the outside world. A child is egocentric in the sense that he/she will only show interest in and expend energy on what is personally useful. However, active and independent inquiry rather than the passive acquisition of prescribed summarised information bring real knowledge, pride of accomplishment and the joy of learning.

From a scientific point of view, the practical seems unpredictable, fragmentary, chaotic and therefore confusing, but to a child, the diversity found in everyday life is easily understood. In biology for instance, study begins with simple life forms while in his daily life, the child learns about animal and plant life from those forms encountered in his environment. The teacher's task is to select phenomena observed by students and of interest to them that will give them the opportunity to comprehend more profound natural laws, even if those are not defined directly.

INTEGRATED APPROACH

Integrated learning is learning which is based on the practical experiences of everyday life.

It is only in the sciences where knowledge is divided into separate and self-contained disciplines. In practice, daily life is not comprised of separate components such as botany, zoology, arithmetic, language and history, but rather all these make up a non-differentiated whole. Initial learning about the processes and natural laws governing the child's world should be grounded in everyday experience and the young student often intuitively understands these.

The world in which the student finds himself/herself and in which he/she must function contains a diversity of spheres and realities which are not isolated but which comprise a complex whole. Therefore, an integrated approach is the most appropriate choice in that it promotes the acquisition of authentic knowledge, skills and values. The integrated approach can be implemented through the use of themes, individual research projects and team-teaching.

CONTINUOUS AND MANIFOLD EVOLUTION

A variety of tools must be used to evaluate student achievement, including students' self-evaluation. Students and parents must have a clear notion of what has been achieved as well as be provided with options and opportunities that promote further development and scholastic improvement.

Evaluation is an integral part of the educational process, and it must occur on a continual basis. The role of teacher evaluation, peer evaluation and self-evaluation of a child's performance is to promote improvement and success. Students must be made aware of their achievement level since it plays an important part in building self-esteem. Teacher and peer acknowledgement or a high score in a test help students assess themselves yet, at the same time, if a student performs poorly, evaluation procedures must be such that he/she is able to maintain his/her self-respect. Criticism must always be constructive rather than destructive. The evaluation of a poor performance should indicate that the expected outcomes have not yet been achieved, but must also include directives regarding ways and means of improving in the future.

Nation-wide examinations are an important evaluative tool in that the results provide comparative data.








Standards require that students' learning outcomes be assessed at 8 points. However, any evaluation tool that complies with observable student performance in the respective teaching subject is deemed acceptable.

THE CONTENTS OF COMPULSORY EDUCATION

EDUCATIONAL COMPONENTS

The different educational components reflect that which is necessary for the development of students' general abilities and skills as well as for the development of each student's evolving self-identity. Together, these components comprise the instrumental aspect of the educational process. Each component offers a response to the question HOW? (How to act, how to do, how to think, how to apply). While emphasising the instrumental side, the notion that students not merely acquire concrete knowledge in a specific field of study but also the tools to cope with both the familiar and the unfamiliar, is being advanced.

The educational components are:

-  creativity and self-expression
-  analytical and critical skills
-  evaluative (moral and aesthetic) skills
-  social (co-operative) skills
-  communicative skills
-  mathematical skills
-  learning skills and practical application

Creativity and Self - Expression

Creative skills manifest themselves and are developed in the process of searching for and discovering solutions to practical problems, uncovering connections, studying the world, oneself and others. Creative skills are closely linked to ingenuity, imagination and fantasy. Emotional self-expression, generating ideas, artistic creation, physical self-expression whether in dance or sport – all are valuable ways for students to express themselves within the educational process.

Analytical and Critical Skills

Students obtain experience in intellectual activities and learn how to think logically (sequentially, with coherence and validity), critically, independently, productively and effectively. Gradually the student learns how to link the present with the past and future, learns how to articulate and defend his/her stand in discussions, and how to persevere in the face of any inconsistencies and uncertainty encountered in complex problems or situations.

Evaluative (Moral and Aesthetic) Skills

Students gain critical experience by learning to recognize, feel and enhance the beauty that surrounds them, to make choices and evaluate events with the aid of moral criteria, and by developing their own value system. Values which are linked with personal development include self-awareness and appropriate self-appraisal, purposefulness, resoluteness, initiative, perseverance, patience, and self-responsibility. Values which are linked to personal interaction are mutual respect and equality, honesty, loyalty, trust, self-restraint, sensitivity and tolerance, helpfulness, and justice (objectivity). Values which are linked to social and civic roles and in relations among nations are respect for life, freedom, and justice; mutual assistance; democratic values and national pride; concern for the preservation and proliferation of one's cultural heritage; sensitivity and tolerance towards other nations and cultures.

Social (Co-operative) Skills

Students gain social experience and learn how to live together harmoniously, respecting themselves and others. Gradually they learn how to work co-operatively in a team, how to reconcile the diversity inherent in any group, and how to reach mutually satisfactory compromises. Students learn how to actively participate in and lead discussions, to initiate and maintain contacts, to determine their roles within the collective group, to defend their position, and to resolve any conflicts. Gradually they learn decision-making and problem-solving skills as well as to accept responsibility for the implementation of their initiatives. Students must also learn how to be patient when facing any difficulties.

Co-operative skills must take into account the principles of equity regarding gender, ethnic, class, religious affiliation and lifestyle orientation. Keeping channels of communication open and maintaining an open-minded attitude will allow individuals to avoid adopting any prejudices or forms of discrimination. At the same time, students should be familiarised with democratically-acceptable forms of social and civic protest.

Communicative Skills

Students gain practical experience in language use, and learn how to use language effectively in a variety of real-life situations, appropriate to the participants and the context. Communicative skills are refined as students learn how to contact and understand others, how to be effective listeners, and how to read and write in a number of languages. Public speaking and debating skills are invaluable.

Mathematical Skills

Students acquire mathematical thinking skills (reasoning with numbers, symbols, patterns), and learn how to apply basic math principles in daily life. The major skills include: performing calculations, measuring, reading information from graphs, diagrams, tables and charts, understanding mathematical symbols and patterns, and being able to select, evaluate and apply mathematical concepts to everyday life.

Learning Skills and Practical Application

Students acquire general learning skills and experience through problem-solving activities. They learn to independently design, organise and implement as well as take responsibility for their individualised learning plan. Students learn to confer and consult with experts if the need arises, as well as to advise and assist others. Mastering information technology is important, especially computer skills.

Any activities that provide training or practical experience should be performed in a manner that ensures the mental health and physical safety of students.

It is the responsibility of teachers in each subject area to implement the educational components as defined and described above.

However, when planning subject area contents, it is important to reach consensus about which components, which abilities and skills will be formed and developed in each specific teaching subject. TABLE 2 on page 12 outlines recommended linkages between educational components and subject areas.*

* The list of subjects included in Table 2 correspond to the 1998/99 Syllabus, but there may be some changes.

EDUCATIONAL SPHERES

The spheres, as outlined below, reflect major educational trends that direct students in preparing for the world of work today, and in the future. The educational components are interwoven throughout. Links between the two are obvious in the basic principles and major tasks of each sphere.




Each educational sphere encompasses the contents of numerous traditional subject areas.








In adopting a wider perspective (as compared to the more narrow subject focus), educators are able to discern any gaps or opportunities for improvement, for subject area integration and subject teacher co-operation. Possible linkages between spheres and subject areas are outlined in TABLE 2, page 12.

The educational spheres are:

- Language
- Self and Society
- Arts
- Fundamentals of Technology and Sciences (Natural Sciences)

Table 2. Recommended Linkages Between Educational Components and Subject Areas

-  - general abilities and skills whose development is most important in the given subject
-  - general abilities and skills whose development should be promoted in the given subject
-  - general abilities and skills whose development should be paid attention to but which is not the main task of the given subject

Educational spheres	Subjects	Educational components						
								
Language	Native language							
	Literature							
	Foreign languages							
	History							
Self and Society	Social studies (aesthetics, basic of economics, civils, health studies)							
	Home economics							
	Geography							
	Sports							
Arts	Music							
	Visual arts							
Fundamentals of Technology and Sciences (Natural Sciences)	Matemáticas							
	Biology							
	Physics							
	Chemistry							
	Computer studies							

Language

Main Teaching Subjects: native and foreign language as well as literature studies.

To assist children of ethnic minorities in integrating into the political, social and cultural life of democratic Latvia, students studying in minority schools must pay special attention to acquiring the official state language – Latvian. Minority schools have until the year 2005 to implement the gradual transition to a bilingual system.

Sub-spheres: the culture of communication, language proficiency, cultural identity.

Rationale:

Language is essential to intellectual, emotional and social development. Language learning promotes the formation of one's cultural and self-identity. Fluency allows one to establish contact at school and in other arenas and is essential to future educational opportunities. It is important that during the language learning process, students realise the value of language as a tool for communication and cultural self-expression.

In doing so, students will be more motivated to become proficient in both their native and in foreign languages. Proficiency in a foreign language offers more extensive opportunities for communication and enhanced familiarity with other nations and cultures and thus widens each student's outlook and world view. The latter is of great importance, in view of Latvia's hopes for future inception and integration into the European Union.

In order to function in today's society, individuals must not only be well-educated in terms of traditional language skills and knowledge, but must also be familiar with modern information technology utilised for locating, organising and disseminating information.

The study of different literary genre is an especially useful tool for the development of language acquisition and proficiency. The examination of poetry, prose and plays introduces the students to a variety of language models and demonstrates the potential uses and power of language. Literature study not only promotes language development but also provides inspiration for student creativity.

The communicative aspect of language is essential and an integral part of all learning, in all subject areas. Reading for information, reading for a specific purpose, producing language which is coherent and cohesive and which is appropriate for a specific audience in a specific context, listening attentively and understanding what has been said or asked, are all skills that can be effectively transferred to and utilised in other subject areas.

Desired Outcomes

Students should be able:

- to achieve fluency, i.e. to understand spoken and written text and to be able to creatively express their thoughts and ideas in productive language (speaking and writing);
- to acquire knowledge of the language system, its rules and peculiarities;
- to refine their communicative skills;
- to be aware of the integral role language plays in both world and a nation's culture and to be prepared to take on responsibility for their own culture;
- to be able to use modern technology in order to locate, summarise, retain and disseminate information;
- to learn at least one foreign language for basic communicative purposes.

Self and Society

Main Teaching Subjects: History, social studies (aesthetics, religious studies, civics, economics and health studies), geography, home economics/domestic science and sports.

Sub-spheres: self-reliance, social systems and processes, co-operative skills.

Rationale:

The Self and Society sphere relates to the social and moral aspect of education. Its main objective is to assist students in studying, exploring and understanding the mores of social life, in developing the skills necessary for making moral choices, as well as expressing and defending their opinions regarding prevalent conditions and current events, and in finding their roles in society.

Students must come to understand their own intellectual and physical development and to understand and develop harmonious relationships with peers, family members and society at large and, at the same time, to be accountable to themselves and to others.

By finding out about the various aspects of social life, students learn to orient themselves, and to evaluate their ability to take an active social role both at present and in the future.

By examining various social, economic and political systems either in a historical or modern framework, students come to understand the complexity of the social world, and to respect the rights of others to be different. Students must also learn democratically accepted forms of protecting their rights and those of others.

Desired Outcomes

Students should be able:

- to understand the processes involved in their intellectual and physical development;
- to choose a healthy lifestyle, understanding the value of good health and the necessity of taking care of their body;
- to acquire communicative skills based on mutual respect;
- to understand and value the influence of familial and cultural traditions;
- to understand the basic rules governing economic trends and to consciously, reasonably and responsibly select their future educational path and professional field;
- to understand the governing social principles of political life, as well as fundamental democratic values so that they are prepared to fulfil their civic responsibilities;
- to realise how the past has affected both present-day Latvia and global society and what role the past plays in determining the future; and
- to gain an overview of the diversity of cultural traditions in Latvia, Europe and the rest of the world, and understand how this diversity has influenced the general development of Latvia and the world, as well as learn patience and tolerance towards those who are different.

The Arts

Main Teaching Subjects: music, visual arts and literature. Participation in amateur performances is also highly recommended.

Sub-spheres: self-expression, variety of art forms.

Rationale:

The arts are essential to the development of one's emotional world. Opportunities to actively participate in the artistic process (singing, playing an instrument, drawing, sculpting, acting, dancing, composing, etc.) enhance the growth of one's imaginative and creative self-expression. Becoming acquainted with one's artistic heritage contributes to one's emotional life. Literary and other artistic works provide students with indirect but emotionally-rich experiences. Analysis of one's artistic heritage enhances intellectual development

and together with emotional and aesthetic experience, forms the basis and criteria for one's aesthetic taste. The arts speak a universal language and help to promote a sense of community that transcends time and physical boundaries. Opportunities to appreciate (whether listening, watching, reading or evaluating) the music, drama, literature and fine arts of other nations facilitate an understanding of the cultural differences that exist, and teach students how to value the existing diversity and at the same time, to begin to formulate their own cultural identity.

Desired Outcomes

Students should be able:

- to master a number of expressive forms, to be able to express their ideas and relate their experiences in a number of artistic activities and to gain pleasure from those;
- to acquire the skills to analyse and evaluate artistic works and to be able to substantiate their personal aesthetic taste as well as that of others;
- to get an overview of the diversity that exists in the artistic world, to gain insight about other peoples, other cultures, other eras and to come to respect and value the cultural achievements of their own nation as well as those of other nations.

Fundamentals of Technology and Sciences (Natural Sciences and Mathematics)

Main Teaching Subjects: mathematics, physics, chemistry, biology, home economics/domestic science and computer studies.

Sub-spheres: mathematics, natural systems and processes, environmental studies, technology.

Rationale:

Mathematics is based upon people's interest in and ability to understand complexity in terms of quantity and generalised patterns (to count, measure, compute, calculate, graph, chart, and shape). The acquisition of these basic skills provides students with practical tools for everyday life. Working with mathematical concepts fosters the development of intellectual skills such as formulating and applying clear and accurate concepts and sequential thinking.

Most importantly, mathematical skills allow students to investigate and describe natural processes. They also provide a valuable tool in understanding social trends (gathering and analysing statistical information, for example) and are readily applied in every day life.

In the study of natural processes, students learn how to examine and understand both living and non-living forms, to study cause and effect relationships, to discern the interconnectedness of all things in nature and the imbalance brought upon by human activity. It is important for students to respect the vulnerability of nature, to be aware of the consequences of human activity and realise the necessity for preserving nature's balance and the quality of the environment. The study of environmental sciences lends itself to the development of research skills.

Desired Outcomes

Students should be able:













- to learn and apply mathematical methods;
- to learn how to apply mathematical concepts to other sciences;
- to observe natural phenomena and processes, investigate their causes and the natural laws that govern them;
- to understand and respect the interconnected nature of processes in the environment and realise how changing one small variable at any phase upsets the balance inherent in any ecosystem;
- to understand what consequences follow any alteration at any one stage of any ecosystem and therefore be aware of the necessity of preserving and enhancing the environment; and
- to learn to observe the beauty of nature and to gain enjoyment from it.

LEARNING OUTCOMES FOR STUDENTS COMPLETING GRADES 3, 6 AND 9

If an outline of the main objectives indicates obligatory directives for the learning process, then the description of students' performance enables the gradual implementation and progress of student learning to be observed. The information contained in the description of students' achievements shows clearly what progress has been made and which of the goals have been met. The attainment of the listed goals will occur at different stages for different students as each child moves according to his/her own individual pace and ability level. Although there are some students who will require more time and experience at each stage in order to attain the results and goals as outlined and therefore require additional assistance, for the majority of students, the criteria are within the realm of the possible and the expected.

Expected results for the four educational spheres are outlined below. Each sphere is then subdivided into sub-spheres. Symbols indicating the educational components or general skills which are possible to attain and demonstrate through observable behaviours appear on the left. When a symbol appears beside a sub-sphere, then the general skills and personal abilities marked by that symbol pertain to all student achievement in the indicated sub-sphere.

Examples have been provided and appear in italicised parenthesis behind various learning outcomes. They have been included only for the purpose of illustrating what is possible and not what has been deemed obligatory.

Grade 3	Grade 6	Grade 9
LANGUAGE		
The Culture of Communion		
<p> understands that in accordance with the situation (<i>e.g. everyday talk, oral presentation, address of welcome</i>) and communication partners (<i>e.g. peers, teachers, older people</i>), people speak differently and knows how to communicate in different everyday situations</p> <p>knows how to listen to the opinions of and understand the emotional mood of other people and in case of necessity, can ask questions for clarification</p> <p> understands the meaning of various non-verbal means of communication (gestures, facial expressions, body stance) and can recognize them in real communication situations</p>	<p> is able to speak clearly and express in writing his/her thoughts, feelings, needs and that of others and understands what others have said and written</p> <p>is able to write different texts, taking into consideration the audience</p> <p> is able to express, explain, motivate and defend his/her own thoughts, views, experiences both verbally and in writing</p> <p> is able to prepare any oral presentation and address an audience on different subjects, answer questions, motivate and capture the audience's attention, and defend his/her own views</p>	<p>  knows how to choose and change his/her own style of speaking and writing, means of verbal and non-verbal expression in accordance with the communication goal and audience</p> <p>  acknowledges that his/her responsibility is to express himself/herself so that communication partners can understand him/her correctly</p> <p>  can perceive in real communication (listening, speaking) the common and distinctive features of human experience and respect any differences</p> <p> can apply communication skills to achieve the necessary goals successfully- to persuade, to ask for advice or help, to support and encourage others</p>

Language Proficiency



can verbally express his/her thoughts, feelings, experience, imagination and is learning to express them in writing



is able to find relevant information in text which has been read or heard in accordance with a specific purpose (e.g. *to find an answer, to characterise literary heroes and their behaviour, to evaluate simple moral patterns, to express personal attitude*)

can interpret and use visual information (e.g. *a photograph, a picture, a chart*)



reads to get information and understands that others read for different purposes (e.g. *to get information, for pleasure and to study*)



is able to use a number of different information sources (e.g. *text-books, the press and other media, family narratives*)



has started to acquire the basics of one foreign language



is able to choose printed matter for reading and reads for different purposes



is able to formulate (verbally and in writing) ideas and the purpose of activities in order to solve problems independently and together with others



creatively applies learned vocabulary verbally and in writing



uses the terminology of other educational spheres with comprehension



is able to use different information sources (e.g. *books, dictionaries, computer data bases*)



is able to verify the credibility of obtained information (e.g. *credibility of a literary plot, media information, story of a friend*)



is able to combine information gleaned from different information sources and texts



acknowledges that language culture is an important constituent part of human culture and consciously and conscientiously takes care of his/her language development



can generalize, using the cognition and vocabulary procured in one educational sphere to other educational spheres and real communication situations



can communicate with people of other cultural and linguistic backgrounds, respect their values, life experience, style



is able to interpret text in great detail



is able to change reading style in accordance with the purpose (e.g. *a quick survey, serious study*)



is able to change the style of speaking and writing as well as the verbal and non-verbal means of communication in accordance with the communication purpose and audience



uses various sources and ways to obtain information necessary for himself/herself and others



understands why it is important to adapt his/her own written and spoken vocabulary, structure and style to the audience and the communication purpose, and demonstrates this skill in real communication situations



is able to identify and discuss different writing styles



can express personal views regarding the contents and style of read or heard text



can use conversational skills to attain the communication goal- to persuade, to ask for advice, help, to support and encourage others, etc.



understands the importance of language rules and spelling in efficient communication and correctly applies the acquired knowledge to express himself/herself verbally and in writing



can recognise and correct his/her spelling and language mistakes

knows and is able to apply spelling rules in preparing correctly written works

Cultural Identity



acknowledges the importance of language and culture in coming to understand himself/herself and others, the culture of his/her own and other nations



understands that reading may help to understand himself/herself and others and world events and reads for this purpose



reads, writes and speaks to express himself/herself intellectually and emotionally, can develop his/her own system of values and share it with others and discuss controversial issues from different points of view



can write and speak about his/her own culture and that of other nations



acknowledges that language is an essential constituent part of human culture



acknowledges that language culture is an important constituent part of human culture and conscientiously takes care of the development of his/her own language



applies knowledge of foreign languages to understand and value other cultures and nations

SELF AND SOCIETY

Self - Reliance



in accordance with the potential of his/her age, assumes responsibility for his/her actions



understands that growing up changes his/her role in the family and community, his/her rights and responsibilities, needs and opportunities



can express and substantiate his/her views and at the same time respect the views of others



acknowledges the necessity of planning his/her time and learns time management



learns to predict the possible consequences of his/her behaviour, to make moral choices and take responsibility for his/her behaviour and accept the consequences



acknowledge his/her own rights and responsibilities and those of others and is motivated to observe them



learns to keep his/her belongings at home and school in order, is neat and organised and takes care of his/her clothing and body, keeping them clean



is able to plan his/her time



can evaluate his/her own abilities, opportunities and roles in society and is able to choose his/her future educational and professional goals



can recognise his/her interests, abilities and aptitudes and understand that they are connected with his/her further education



can compare different professions and evaluate their importance and value in the lives of different people



learns to be glad about the achievements of his/her peers and his/her own



starts to acknowledge the variety of emotions which are grounded in practical experience, learns to cope with emotions and to help others do the same



acknowledges the value of health and his/her own responsibility for retaining good health, has a conception of how to take daily care of his/her health



having a rich experience of physical activities (sports, games, physical labour, etc.), acknowledges their importance and benefit in his/her life and that of others

Social Systems and Processes



has some conception about his/her own national culture and that of neighbouring cultural groups



knows the meaning of family, native land and home, and knows how to characterise their importance in his/her own life and that of others

recognises and acknowledges his/her abilities, aptitudes and interests and understands how they can influence his/her further education and choice of profession



acknowledges the importance of health and can consciously choose a healthy way of life



knows the more dangerous hazards for health, knows how to avoid them and can offer medical aid in case of minor accidents



has a conception about the changes his/her body and psyche are undergoing and understands the important aspects of his/her sexuality



is aware of the different forms violence can take and be used against him/her, realises his/her right to ask for assistance and knows where to seek it



knows his nation's traditional cultural values and is aware of the positive investment of other ethnic groups in the development of Latvian culture



learns to identify himself/herself in time and space and starts to understand that differences exist between the past and the present and that the present moment is linked to and is a continuation of the past



understands the importance of leisure time in a person's life, has a concept of how to spend it in a healthy and fruitful way and is motivated to spend his/her free time sensibly



has obtained a basic understanding about the functions of the human body and psyche and natural laws governing spiritual life, and acknowledges the necessity of caring about mental and physical health



knows the basic human rights and is ready to assume civic responsibility



has some conception about different cultural traditions and values, recognises the diversity of cultures and has respect for the diversity inherent in world culture



has some conception about the diversity of world culture, economics and politics in local, national, European and international affairs and is able to evaluate and respect this diversity



can look at Latvian history and the present day situation from the point of view of different social groups



knows the national symbols and holidays of Latvia, its capital and holds them in respect

can name Latvia's closest neighbouring countries



notices changes in his/her immediate social environment (e.g. in the family - when parents may lose or find jobs), can evaluate how they influence him/her personally and can suggest possible ways to change the situation



learns to realise how people adjust to change and applies problem solving skills to implement changes in his/her own life



values his/her own work and that of other people

knows and observes traffic regulations and other safety regulations, and knows where to get help and who to turn to in case of an accident

Co-operative Skills

can co-operate with his/her peers in everyday situations

knows what the laws are and why one has to observe them

has developed a basic understanding of the Saeima, the government, local governments and their main tasks



can apply problem - solving skills to improve himself/herself and bring about change in the immediate social environment



understands why level of education influences the quality of a person's life



knows how consumers can influence the quality of products and services



knows how to apply different technologies to make his/her everyday life easier



understands how economic activities influence the quality of life



knows about the existence of different social groups (family, friends, class-mates, etc.) and values their importance in his/her life



can apply knowledge about the past to understand the present and discuss the future of society



knows the political and administrative structure of the Republic of Latvia and its functions



understands the importance of laws in public life and acknowledges the importance of basic democratic values



is able to develop his/her own plan regarding further education and professional training and can take responsibility for its implementation



has some conception about the situation in Latvia's labour market (unemployment, the necessity for requalification, the demand for specialists with higher education) and can weigh his/her own possible options



acknowledges that education may influence the choice of specialisation and professional activities and understands that readiness for life-long education can positively influence his/her opportunities in the future



understands the importance of ethics in economic activities



has acquired the fundamentals of economic, social and political thinking and activity



understands the main reasons why people work and engage in business



knows how to interact in different social situations, can assist as an advisor and help others



has an initial understanding about emotions and their importance in self-expression, and social situations and learns how to distinguish between socially acceptable and unacceptable expressions of emotion



distinguishes differences and common features in people (appearance, age, gender, wealth, ethnic and religious affiliation) and learns how to respect differences



acknowledges that he/she has rights as well as duties and responsibilities as a member of a family, class, school and local society



has acquired the basics of good conduct which are necessary for everyday communication situations



can value the importance of a favourable psychological climate in social interaction and learns how to create it at school, in the family, among friends and in groups of his/her peers



learns how to adjust to new situations in his/her everyday life and get on well with unfamiliar people (e.g. a new class-mate, neighbours, etc.)



is sensitive to and able to assess different social conflicts on interpersonal, national and global levels and suggest possible solutions



has some conception about how Latvia co-operates with other countries and international organisations, how co-operation is promoted on governmental levels and how he/she personally can promote it



acknowledges the possible detrimental influence of his/her peers and other people on himself/herself and can defend his/her own views and values



has acquired the simplest psychological concepts and rules of etiquette for communication in different life situations

THE ARTS

Self - Expression

takes part in various artistic activities at school - sings, plays a musical instruments, draws, paints, sculpts, tells stories



enjoys and gets satisfaction from taking part in various artistic activities, develops his/her fantasy, imagination and thirst for knowledge



acknowledges the importance of diligence and patience in artistic activities and learns to work carefully and complete initiated activities or projects

can implement personal experience and observations of the surrounding environment for artistic expression



can engage in artistic activities individually and together with others (*is able to and enjoys playing music in a group, acting in a play, etc.*)



taking part in various artistic activities learns how to evaluate his/ her own artistic abilities



can develop personal goals in the arts, purposefully develop his/her abilities and evaluate his/her own progress

can choose means of and topics for artistic expression



can execute an artistic project together with others



can evaluate his/her own work and make judgements about it

can apply the acquired artistic and appreciation skills to other spheres

acknowledges his/her own artistic talents, can evaluate his/her opportunities for professional activities in the arts and can plan and purposefully prepare for possible art studies

can choose the means and topics of artistic expression and defend/support his/her choice



can execute an artistic project individually and together with others



has an elementary conception how sounds are represented graphically, understands sheet music and develops music-recording skills



listening to different kinds of music develops listening skills, learns to recognise musical means of expression and links them with the characteristic features

understands that each the arts requires special skills

has acquired an elementary conception about the key elements of artistic expression and uses them in his/her creative works



learns to understand himself/herself and his/her abilities in artistic creation



understands sheet music and can sing simple melodies using sheet music

listens to music of different styles, genres and nationalities

contributes to artistic activities and the cultural life of his/her school, rural district or town

can use different key elements of artistic expression in his/her works



knows how to use various technologies to express himself/herself in different art forms

knows how to use and maintain art supplies and materials



develops his/her self-confidence and individuality through improvisation and creative expression and develops a feeling of community

starts to acknowledge that artistic self-expression and the enjoyment of art is a meaningful and valuable way of spending one's leisure time.

listens to and learns how to distinguish between music of different styles, genres and nationalities, learns to recognise characteristic features in the music of different nationalities

knows that he/she can take part in and promote the cultural life of the local community

understands that he/she can develop social communication skills through the realisation of artistic projects

shows his/her ability to choose and use different key elements of artistic expression in his/her work and links his/her choice with an idea

can explain the ties between the expressed idea and the chosen form in the artistic creation

can express himself/herself through artistic creation

knows how different symbols can be transformed into sounds

Variety of Art Forms



understands that there are a number of causes why people create works of art (e.g. to express one's own opinions, to get pleasure from an artistic activity, etc.)

understands that different cultures express ideas in a number of different ways

distinguishes and is able to describe the forms and aesthetic aspects of a work of art in the abstract as well as of a concrete example

has acquired an elementary understanding about the variety of artistic forms



can express his/her emotional attitude and aesthetic evaluation when characterising a work of art



listens to and respects the thoughts and opinions of other people in discussions of works of art

knows how to behave appropriately in art galleries, museums, concert halls and theatre performances

knows that art is a profession and can comment about art as a profession

understands that different aspects of a piece of art work together and that their joint influence is the source of emotional and aesthetic experience

understands and can explain the aesthetic aspect of a work of art



uses appropriate terminology in discussions of works of art and in the evaluation of them

understands that the application of different technologies can change artistic methods and how they are expressed in different forms of art (*e.g. sound recordings, application of computers in art*)

can explain how art expresses ideas and reflects the social and cultural background of the period when it was created

understands that there exist ties between works of art and other objects (*e.g. sculptures in parks, paintings in offices, etc.*)

understands how works of art can influence human behaviour

understands that there exists a connection between the arts and other fields of education and spheres of life

can identify different styles, techniques, themes and the expressed ideas in familiar works of art

can analyse the style, technique, artistic means of expression, and theme of a piece of art

understands that the art of different cultures includes common as well as diverse features

notices and is able to describe the unique features in the art of different cultures

understands how works of art can influence the views and values of a person

FUNDAMENTALS OF TECHNOLOGY AND SCIENCES (Natural Science and Mathematics)

Mathematics

knows that surrounding things and processes can be described and quantitatively expressed, recognises natural numbers, can name them, write down and do the four arithmetic operations (addition, subtraction, multiplication, division) in the one hundred range and solve practical exercises using the concepts of comparisons

can do the four arithmetic operations: addition, subtraction, multiplication, division with rational numbers, understands the notion of these terms and can do the appropriate calculations



understands the concept of mathematical statements (definition, features, indicators) and can use them effectively

can perform simple operations with algebraic expressions – addition, subtraction, multiplication, division and exponents, and can simplify them



understands the concept of measurement, can read and compare measurement results (length- cm, m, km; mass- g, kg; temperature- Celsius degrees; time- second, minute, hour, day, week, month, year; money- santims, lats) and in solving practical mathematical exercises can progress from bigger measurement units to smaller measurement units



recognises and can draw geometric figures (rectangle, triangle, square), can estimate perimeter and using this understanding, is able to solve practical mathematical exercises



in doing practical mathematical exercises has acquired an elementary notion about "fractions" (a fraction of a quantity- whole, half, one third) and can apply this knowledge when he/she has to solve important everyday tasks



is able to develop mathematical exercises which relate to everyday situations and deal with numerical ratios



in solving practical mathematical exercises, understands the concept of measurement and in easy examples can pass from one measurement system to another



has acquired knowledge about geometric figures, their characteristics, elements, area and perimeter and can use this knowledge in the solution of practical tasks



can reproduce and estimate comparable values in simple graphs. Understands the concept of per cent, and can express comparable values in percentage form



can develop a mathematical model for simple, practical exercises and solve practical tasks using mathematical methods



can reproduce points on a co-ordinate plane and can read the co-ordinate points as depicted in the co-ordinate plane



in solving practical mathematical exercises, understands the concept of measurement and can pass from one measurement system to another



has acquired some conception about the simplest solid bodies, can calculate their dimensions, surface area and volume



can estimate the simplest relationship between values and depict them graphically, can compare values, can solve linear inequalities, quadratic inequalities and systems of linear inequalities



can develop a mathematical model in practical tasks – linear equations, systems of linear equations, quadratic equations and systems of equations- and can solve them

Natural Systems and Processes



can observe and recognise the existent variety in living and non-living natural forms



recognises the animal and plant indigenous to his/her neighbourhood and Latvia and has basic understanding about endangered species in Latvia



in performing simple observations and practical research and investigation, can describe the flora and fauna of the surrounding environment and can recognise general groups of plants and animals



understands the main natural processes of living things and their manifestation and acknowledges the value of life



can investigate and explain connections in natural objects, systems, processes and in their relationships



can examine and explain causal relationships in the inanimate world based on his/her observations in the immediate neighbourhood (e.g. soil erosion, changes caused by the movement of the Sun and the Moon, etc.)



has some initial impressions about the natural wealth of his/her immediate surrounding neighbourhood and of Latvia as a whole



can investigate and describe (tell, draw, etc.) some local ecosystems (e.g. river valley, pond, forest, meadow, park)



based on their simplest characteristics can recognise solid, liquid and gaseous substances which can be encountered in everyday life



has acquired an elementary understanding about energy and can recognise its different forms in everyday life (e.g. thermal energy, light, electric power) and can avoid accidents caused by incorrect application of household electrical appliances



observes the changeability of nature in his/her neighbourhood caused by different factors (e.g. human activity, natural catastrophe, etc.) and understands how living things adjust to the environment and its changes in order to survive



understands the diversity of natural resources, their practical utilisation on a local, regional and national scale



has a notion about ecosystems and can recognise them in the local surroundings



can explore and characterise the properties of materials, their changeability (e.g. due to temperatures, corrosion, etc.), understands which properties determine their application in everyday articles and technical solutions (e.g. usage of clay to make chinaware, production of construction materials, etc.)



can describe the simplest characteristics of substances and materials used on everyday basis and understand how these characteristics allow to use these substances and materials in everyday life (e.g. food, clothing, school supplies, toys, etc.)

can avoid risky situations caused by incorrect or careless utilisation of certain substances



knows different types of energy and has an understanding about their changes and can use energy economically



understands the diversity of natural resources, their practical utilisation on a local, European and world scale and can evaluate the economical utilisation of natural resources in the context of the notion of limited natural resources



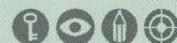
can explore systems of living and non-living natural systems to understand their structural formation, interaction and correlation, can discover the factors which create them and their inner structures (e.g. limited natural resources, adaptation, etc.), understands the concept of life cycle



can differentiate physical, chemical, functional and aesthetic characteristics of different objects and recognise their mutual correlation



can explain the ways how substances change chemically and physically and how these transitions are utilised and may be utilised in practice



through practical observations and experiments has understood the exchange of energy (e.g. watermills, etc.) and understands the economic usage of energy and can propose some suggestions on how to save power



in making observations in his/her immediate neighbourhood, can notice and describe some regular natural processes (e.g. *the change in seasons, the movement of the Sun and the Moon, etc.*)



understands and can explain the change of day and night, length of day, night and year depending on the movement of the Earth around the Sun and has got an elementary notion about the solar system



has got an initial notion about the structure of the Universe and its changeability

Environmental studies



in practical ways explores the surrounding neighbourhood and can recognise and describe the unity of people and the environment (e.g. *how the change in seasons influences people's lives, how the elements of nature influence people's economic activity in the immediate neighbourhood and Latvia, etc.*)



can recognise and explain the correlation between the environment, a person's lifestyle and applied technology



understands and can compare the attitude of different cultures and societies towards the environment



can examine, recognise, characterise and estimate the environmental changes caused by human activity in his/her surroundings (e.g. *the school chimney blackens the walls and nearest trees, birds die on electrical wires, etc.*)



has acquired an understanding about the changes caused by human activity on a local, regional and global scale



has acquired an understanding of how modern and regressive technologies influence the environment and understands the necessity of preserving nature through technological solutions



acknowledges the necessity of taking care of and caring for living things (plants, animals) at school and in the immediate vicinity



understands the importance of waste collection and disposal in environmental protection and applies his/her knowledge in practice



realises the value of the environment, the importance of Latvia's natural and cultural environment and is motivated to preserve and take care of it



learns to notice and appreciate the beauty of the nature, can describe, express his/her thoughts and feelings about the aesthetic beauty of nature



can recognise the vulnerability and fragility of nature on a local, regional and national scale, can suggest possible ways to solve ecological problems, plans and takes part in environmental problem-solving solution activities at school, in rural areas, etc.



can organise and take part in joint projects for the preservation of environmental quality and improvement

Technologies



can obtain necessary information from many sources and use it for the formation and substantiation of his/her evaluation



according to the assigned task, can choose and find information sources and learns how to evaluate the credibility of the obtained information



can acquire information from different sources, including scientific books and journals, can evaluate the credibility of the obtained information avoiding prejudice, biased interpretation of information



is motivated to inquire about current events and the world and seeks answers to questions

can participate in research activities following correct sequentially - ordered procedures (formulate a question or articulate a problem, develop a working hypothesis, evaluate existing information, find and gather additional information, etc.



knows how to work individually and in a group on inquiry and constructive activities



learns to evaluate the quality objects used on a daily basis and can use simple household and electrical appliances, materials



learns how to make useful items and products using different materials and methods



can explain and demonstrate the activities performed in the production process of an article and sequence, and appreciate the final result



acknowledges that his/her interest in nature and technology can be linked to future professional activity



according to the given situation uses different information gathering, processing and maintenance methods, including elementary operations using modern information technology

can choose and apply different research methods to perform investigations, if need be, can return to the previous steps of investigation and repeat them (e.g. *can repeatedly specify or define a hypothesis, repeat an experiment, perform additional observations, etc.*), can perform the investigation meticulously, accurately and creatively



understands that each member of the group bears responsibility for the result of the activity and can work in a group, taking upon himself/herself different roles (functions, tasks)

with a clear idea in mind, can choose materials and apply different technologies to produce a household goods



can apply models, symbols, drawings, sketches to plan research or design activity and informs others about it using modern information technology



acknowledges that the perspective professional activity in the field of science or technologies demands careful preparation, can judge his/her own abilities and ways of their development to carry out the preparation process



can perform simple operations using the computer in different educational spheres



acknowledges the importance of research and technological methods and when engaged in research, can apply them in his/her investigations and explain them to others



understands and can explain why co-operation is so important and works individually and in groups to access and solve personal, social and global problems

can implement projects which are connected with the design and production of an article



can prepare a public presentation using different media technology



can evaluate possible career opportunities in the fields of science and technology in view of his/her abilities and interests and plan his/her future educational path

FUNDAMENTALS OF AND PROCEDURES FOR THE EVALUATION OF STUDENTS' EDUCATIONAL OUTCOMES

Education comprises the goal-oriented process of developing self-identity (the acquisition of knowledge and learning), and its results (the achieved educational level). The quality of education as a process is dependent upon educational institutions and the educators (instructors, teachers, nurturers, etc.) working in those institutions. The resultant quality is linked to the content that is offered, and to the level of expected outcomes.

The goals for the acquisition of particular subject content, that is the knowledge, skills and attitudes which characterise the optimum level of learning in that subject, as well as the evaluation tools and methods that can be utilised are outlined in the *National Standards of Compulsory Education*.

In order to evaluate student achievement in a manner that is both comprehensive and provides maximum objectivity, **assessment tools must specify the scope of knowledge and skills acquired, students' attitudes towards learning, as well as the dynamics of development that characterise each individual.** The proportional weight accorded each element at every level differs. For example, in grades 1 to 3, it is deemed more important that each student is motivated to learn, and is taught and adopts effective learning and studying skills than to merely evaluate the level of knowledge acquired. The dynamics inherent in each student's development must be observed and noted. **These important educational components can only be examined and assessed through daily and continuous contact in the classroom with the teacher, as well as with the use of both peer and self-evaluation techniques. State-developed examinations can only aspire to evaluating students' acquisition levels of knowledge and skills.** (see Table 3)

Table 3. Proportional Weight Accorded Each Educational Element at Each Level of Compulsory Education

Level Component	Grades 1 - 3		Grades 4 - 6		Grades 7 - 9	
	Teacher Evaluation	State Examinations	Teacher Evaluation	State Examinations	Teacher Evaluation	State Examinations
Knowledge	10% - 20%	20% - 33%	20% - 25%	33%	25% - 33%	40%
Skills	30%	67% - 80%	25%	67%	25%	60%
Attitude	25% - 30%	—	25%	—	25%	—
Developmental Dynamics	25% - 30%	—	25% - 30%	—	17% - 25%	—

Student achievement in compulsory education will be evaluated as follows:

- **Grades 1 – 3**

a non-graded system. Oral and written anecdotal reports describing and commenting on work performed by the student, his/her work style, his/her communicative and co-operative skills, attitudes and dynamics during lessons

- **Grade 4**

a 10-point scored system. Used in the assessment of students' first language and mathematics skills.

a non-graded system. Used in all other subject areas.

- **Grades 5 – 9**

a "complete"/"incomplete" designation. Used in social studies, with the exception of introductory economics

a 10-point scored system. Used in all subject areas, including intrudactory economics.

Evaluating with a 10-point scale allows for opportunities to analyse the quality of students' achievement by assessing:

- the scope, quality and level of acquisition of subject content (to know, to be familiar with, to be able to do, and to be able to use);
- the acquisition of supplementary/complementary information through self-initiated and independent study (going beyond the obligatory curriculum);
- attitudes towards learning, the self and the community;
- order, diligence, goal-directness, conduct, self-control, motivation, learning and working style;
- communicative and co-operative skills; and
- the dynamics of achievement in the learning process.

In the 10-point scoring system, evaluation results are obtained by summarising the (positive) achievements of students.

Table 4. The Application of the 10-Point Scoring System, and Subject Standards

LEARNING SUBJECT STANDARD				SCORE	LEVEL OF ACQUISITION
LEARNING GOALS	CONTENTS	KNOWLEDGE AND SKILLS	EXAMINATION METHODS AND TOOLS	10 "EXCEPTIONAL"	High (excellent)
				9 "EXCELLENT"	
				8 "VERY GOOD"	Optimal
				7 "GOOD"	
				6 "ABOVE SATISFACTORY"	
				5 "SATISFACTORY"	Satisfactory
				4 "BELOW SATISFACTORY"	
				3 "UNSATISFACTORY"	Weak
				2 "POOR"	
				1 "VERY POOR"	

National educational standards in each subject area define the requirements for acquisition at an optimum level. In order to ascertain each student's level of achievement, examinations must be designed in such a way that they provide students with opportunities to demonstrate knowledge and skills in the assigned tasks, questions and exercises that correspond to every respective level.

Students earn a score of 9 – 10 if:

- they have acquired the presented knowledge and skills so that not only can they comprehend, recall, reproduce and manipulate the learned material in similar situations, but are also able to apply it independently and creatively in new, unfamiliar contexts;
- they are capable of solving a variety of problems, to substantiate and defend their position logically, and to observe and explain natural laws;
- they can synthesise acquired knowledge and skills so that a unified whole is created, and are able to critically compare what has been learned with reality and apply it to everyday life;
- they can independently formulate and express their attitudes and opinions, define their operative criteria, predict consequences, and are tolerant and able to respect and evaluate different perspectives; and
- demonstrate highly developed thinking skills for intellectual activity.

Students earn a score of 6 – 8 if:

- they are able to fully comprehend and reproduce learned material, observe natural laws and distinguish problems as well as differentiate the essential from the insignificant;
- they are able to utilise learned knowledge, skills and attitudes according to provided examples in analogous or familiar situations and are able to solve modelled and more complex subject-related tasks;
- they perform assigned tasks diligently, demonstrating strong abilities and talents as well as a well-developed free will;
- they express personal attitudes towards learned subject material but respond more at the level of formulated statements and conclusions rather than analysis, and they demonstrate effective communicative and co-operative skills; and
- they progress within the limits of their individual abilities.

Students earn a score of 4 – 5 if:

- they are familiar with the assigned material, are able to differentiate between the essential and insignificant details, know and can define basic concepts, rules, and theories, can formulate defining conditions and solve modelled subject-related tasks;
- they can reproduce material in a clear and concise manner, as well as evaluate it and reach logical conclusions;
- they use traditional methods of inquiry in the learning process, can follow teacher-provided instructions, and complete assigned tasks with little or no interest in extending their knowledge base;
- they are able to respond personally to comprehended subject material and satisfactorily communicate and co-operate with fellow students and staff; and
- they progress within the limits of their individual abilities.

Students earn a score of 1 – 3 if:

- they are able to grasp and recognise subject material but can only remember and reproduce a limited amount (less than 50%), and they can solve basic tasks according to provided examples and in familiar contexts but they still make many errors;
- they reproduce learned material in a confused, illogical, incomprehensible manner, are unable to differentiate the essential from the insignificant, do not follow instructions and show no interest in the subject material;
- they are only able to express their personal attitudes periodically, and often hold no personal opinions;
- they demonstrate poor interpersonal skills with classmates and staff; and
- they lag behind classmates in the learning process.

Students' achievements should be evaluated with the use of a variety of forms (individual performance, group performance, oral work, written work) and methods. Self-evaluation and peer evaluation should both play a significant role in the evaluation process.

Examinations for the most part, are used in the evaluation of individual achievement. Examinations can be classified according to goals, contents and role in the educational process.

Goals:

- *diagnostic examinations*– to ascertain students' achievement in a particular subject with the purpose of indicating areas for improvement. Diagnostic examinations or tests are designed by subject teachers. Any examinations of this nature which are designed by the state are for the purpose of teachers' self-evaluation of their work and for planning and professional development purposes.
- *examinations developed by teachers, the school, the city or the regional board*– to establish the achievement level in a particular subject in order to clarify whether it complies with the standards as put forth and outlined for the particular subject or group of subjects.
- *state examinations*– to monitor compliance to stipulated requirements as set out for each subject and subject area (in combined and/or integrated examinations) by the state with the purpose of clarifying and comparing nation-wide student achievement levels.

Contents:

- examinations designed to monitor attained achievement levels in a particular subject
- examinations designed to monitor attained achievement levels in a subject area (combined and/or integrated examinations)

Role in the Educational Process:

- *the regular examination*– an integral part of the learning process which, with its diagnostic nature allows the analysis of students' achievement and indicates areas for improvement and promotes independent learning.
- *the final examination*– used to ascertain students' achievement and evaluate their educational level upon completion of a topic or a grade, studies in a subject area or an academic level.

Students and their parents must be informed about the evaluation methods, their contents and procedures. Information regarding state examinations for each subject may be obtained from the syllabus developed by the Ministry of Education.

Evolution procedures

Self-Evaluation. By applying various evaluation methods and forms in the learning process, students develop self-evaluation and peer-evaluation skills.

Teacher-Evaluation. An integral part of the teacher's professional role is the continuous, objective and comprehensive evaluation of students' achievement which is accomplished with the use of both regular, on-going tests and final examinations (which are used upon completion of a topic or subject as well as at the end of a semester or academic year). With the exception of state examinations, both are designed by the individual teacher or the teaching staff of the school.

State Examinations. State examinations are used to determine the national level of:

- the child's preparedness to commence studies
- students' achievements in specific subjects or in integrated studies at the completion of different academic levels (grades 3 or 4 and grade 6)
- compulsory education outcomes achieved by students completing grade 9 for monitoring purposes

State examinations used for diagnostic purposes (referred to as state "control papers") may be assigned in any subject for any grade level. Information regarding these examinations planned for a specific school year will be provided no later than at the beginning of that school year.

State Examinations at the Elementary School Level

- Upon completion of Grades 3:

tests

with combined learning contents
in the student's first language

in Latvian (students, who are undertaking educational programmes in minority schools)

- Upon completion of Grade 6:

tests

in the student's first language
in mathematics

in Latvian (students, who are undertaking educational programmes in minority schools)

- Upon completion of Grade 9:

examinations

in mathematics
in the student's first language

in Latvian (students, who are undertaking educational programmes in minority schools)

tests

Four tests will be given every academic year. Schools will be notified which subjects will be the focus of evaluation for that school year and will receive that information at the beginning of the academic year for two of the tests, and no later than April of that academic year regarding the remaining two tests.

