

A curriculum for Norwegian Waldorf Schools

Overview – Ideas and Practices in Waldorf Education

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Overview – Ideas and Practices in Waldorf Education

Founding Ideas and Practices in the Norwegian Waldorf Curriculum

Introduction

Overview – Ideas and Practice in Waldorf Education introduces core educational ideas within the Norwegian Waldorf curriculum and presents essential elements of its educational practice. It outlines values and cultural and knowledge-related foundations of the Waldorf School as well as developmental principles of the curriculum in relation to teaching and learning. Part Two of the curriculum comprises an account of expected learning outcomes¹. Allowing for the principles of individually adapted learning and local curricular activities, both parts of the curriculum are otherwise mandatory².

The principle of adapted learning is at the heart of Waldorf education. This *Overview* and Part Two (on learning outcomes) each have an ideal and general character. The contents and methods described in the curriculum should be adapted to the abilities and potential of each individual child and each class. The general intentions of the curriculum and individual needs and talents of pupils form a complex frame for Waldorf education. Balancing these issues requires constant re-evaluation on the part of the school and the teacher. Education is a collaborative effort, involving pupils, teachers, parents and the school's leadership and furthermore, relates to society as a whole. Each school must therefore ensure that its curriculum and teaching respond to and enhance local cultural and geographical conditions.

Contemporary schools exist in a society characterised by great cultural, technological, economic and environmental changes. Future generations attend today's schools and the task of education is to provide for a responsible and sustainable development in the years to come. Pupils should not merely be educated for society as it is now; they should be provided with the capacity to face future society in a knowledgeable, independent and innovative way. A well-rounded development of abilities and skills, as well as a deep-seated ethical foundation, is necessary to meet the challenges of the future.

Waldorf education emphasises the individuality of the child as a source of renewal and creativity. The unique individuality of each child is related to an ability to take action ethically and to personal development. The goal of education is to create optimal conditions for this essential part of the human being; one might say that which is "sacred" in a person, to come into its own. The challenge for education is to provide guidance and inspiration so that the child's individuality and personal uniqueness will have the greatest opportunity to flourish.

In addition to respect for the individual, Waldorf education is rooted in the idea that all school activities should be consciously related to the surrounding society, to the diversity of cultures and to the natural environment. The Waldorf approach sees no contradiction in the twofold intention to honour the individual in each child while, at the same time, preparing the child for the conditions and expectations he or she will meet in the wider world. Socialisation and the acquisition of socially required skills and knowledge are necessary elements in an education towards freedom. It is

¹ Part Two of the curriculum is not translated into English.

² See Appendix 1 regarding how the *Overview* relates to *the Core Curriculum for Primary, Secondary and Adult Education* in Norwegian public schools.

precisely in fellowship and in authentic cultural and social situations that each and every person can find a place and the potential to live in tune with his or her own abilities, attitudes and convictions.

The Spiritual Basis of Waldorf Education

Waldorf education was developed by Rudolf Steiner (1861- 1925) and originated in his philosophical and anthroposophical ideas. Anthroposophy relates to humankind, society and nature in a spiritual as well as a material way. This implies that the material and perceptible aspects of existence are connected to their non-perceptible, spiritual components. In anthroposophy, the human being is described as composed of body, soul and spirit and the spiritual nature of humankind is interpreted as existing beyond life and death. Thus, an image of humankind arises acknowledging the sacred and unfathomable in all persons, beyond observable traits and characteristics. This holistic idea inspires Waldorf education towards humane and ecologically oriented ethics with a twofold goal: the first is contributing to the development of viable life strategies within topical, societal and cultural premises; the second is an education that seeks to greet every individual child with reverence and respect. This respect is further expressed in how Waldorf pedagogy relates to nature, culture, history and society.

Anthroposophy or elements from a spiritual worldview are not present in teaching but constitute a background for values, attitudes and methods of teaching.

Two Founding Ideas

Waldorf education is largely founded on two core premises. The first is the importance of thinking, feeling and willing being interwoven in fruitful cooperation. In other words, it can be said that the foundation for learning and development lies in an act of will related to emotional experience, which subsequently is connected to intellectual learning. The way in which teaching engages the will and the emotions forms a basis for the later development of independent judgement and the acquisition of theoretical knowledge. The idea of educationally relevant connections between thinking, feeling and willing has been known since the days of Plato. Best known, perhaps, is Pestalozzi's learning of the head, heart and hand.

The second central premise in Waldorf education involves a four-fold structure of humankind. Rudolf Steiner described the four aspects as the physical body, the etheric body, the astral body and the ego. The physical body is composed of the same materials that exist physically in the world. In this respect, humankind is related to minerals. The etheric body is a term signifying the life-principle in humankind and reveals itself through growth and form, a quality which humankind has in common with plants. The astral body denotes the ability to communicate, including communication through perception and movement. It can be understood relationally as a disposition towards sensitivity and reaction as the human being encounters his or her environment. Human beings have this in common with animals. Finally, the ego is associated with thought, language skills and self-awareness: it was in the ego that Rudolf Steiner perceived the spiritual aspect of humanity. These four existential parts are interpreted as dynamic elements within a living whole that are constantly in development. A view of humankind thus arises recognising that in addition to the physical body, life, perception, movement and also language, thought and self-reflection are all part of a fuller description of human nature.

Each of these four aspects requires its own educational stewardship. Waldorf education emphasises different modes of teaching and learning in the care of what is physical, what is alive and what is relational. In accordance with the Waldorf ideal of an education towards freedom, however, the highest level – the individual's self-conscious path to knowledge and development – is not considered to be within the domain of the Waldorf School. The school merely strives to give

children and young people the best foundation for ethical, political, religious and insightful self-direction. Such an understanding of education, where learning goes hand in hand with the development and maturation of the child, has roots in the ideas of Aristotle and Kant, among others, and is related to several approaches in developmental psychology. While Waldorf education is thus associated with important ideas in the history of education, incorporating them within a principle of education for freedom is unique to the Steiner approach.

Education towards Freedom

The ideal of an education towards freedom is central to Waldorf education. Here, freedom is understood not in terms of the greatest possible emancipation or self-realisation, but rather as the potential for pupils to develop their skills and talents in such a way that they can make active and responsible choices for themselves and their world.

The concept of freedom in Waldorf education is related to a harmonious development of thinking, feeling and willing on the one side and physical health, good habits and maturity of relations on the other. Hence, freedom is recognised as bearing a connection to both the child's active, learning consciousness and to his or her bodily and constitutional nature. The ideal of an education for freedom can thus be seen as a holistic intertwining of the two core Waldorf educational premises. By raising the importance of both consciousness and constitution in connection to the child's learning and development, Waldorf education seeks to afford pupils' independence and responsibility. Freedom in this respect means the capacity to relate responsibly and innovatively to ethical challenges.

At the Waldorf School, children and young people are regarded as complete and competent individuals in their own right. Childhood is considered as in no way inferior to adulthood and holds its own inherent value. At the same time, children and young people are vulnerable. They need adult guidance and protection in order to thrive and extend their abilities in learning and development.

The concept of freedom gives Waldorf education a value orientation for the particular realities of school and community, where pupils, teachers and parents take part in each other's learning and development. The idea of educating towards freedom thus casts an ethical light on all educational activities. This can evoke wonder and mutual respect, as well as inspire openness towards the unknown. Waldorf education does not promote or adhere to any specific religion, faith or worldview.

A Threefold Understanding of the Curriculum

In his lectures on education, Rudolf Steiner often stated that the curriculum is formed out of the needs of the pupils and out of their abilities to learn and develop. The teacher's task was to interpret, to 'read human nature', and to teach based on this 'reading'. A teacher who meets his or her pupils afresh, every day, with an inquiring respect for this child's uniqueness, becomes a fellow creator of a mutual ethical relationship. The Waldorf curriculum and its educational principles recognise and care for this delicate ethical communication between teachers and pupils. A teacher who truly sees the pupils can be aware of the potentials inherent in every child and can use this awareness to stimulate learning and development.

Beyond the intention to be open to, to 'read' and to adapt teaching to the potentials within pupils, the Waldorf curriculum aims to ensure that all school subjects and activities are covered in a comprehensive manner. During the course of the school years, pupils will encounter a complete range of subject content and a rich variation in ways of working. This means that the school years,

as a whole, comprise learning opportunities in relation to an entirety of knowledge, skills and competences appropriate for today's living conditions. The curriculum aspires to constitute such wholeness on many levels: from mythical time to the era of information technology; from felting wool to developing digital skills; from local cultural traditions to global solidarity and understanding. Both the subject matter and the practical methods begin with what is close and familiar and then move through the school years in the direction of complex and abstract relationships.

A third principle of the curriculum is that all learning is organised according to a principle of progression. Seen from a broader perspective, Waldorf education offers teaching and learning linked to three seven-year periods of development. Each seven-year period is again differentiated in that specific topics and teaching methods are selected as appropriate to each age group. Subject matter is organised in lines of progression inviting pupils into given learning and developmental opportunities. This aspect of the curriculum goes beyond the individual situation of each pupil and can be regarded as a qualitative journey of progression, a *Bildungsreise* throughout the 12 years of school.

The Waldorf curriculum, therefore, cannot be understood by examining just one of these three dimensions in isolation. The ethically oriented 'reading' that can occur in encounters between pupil and teacher, the complete subject content and methodology within the curriculum and its developmental structure must be considered as a mutually supportive whole. The curriculum presupposes respect for every individual child, and aims at giving rise to an education with a profound moral sensitivity and perceptiveness to the qualities and potentials of the pupils. Subject matter and knowledge inherent in the curriculum are directed towards a complete content, which reflects the world's *realia* and at the same time aims at allowing for pupils' personal identity processes in encountering the various learning contents. Furthermore, the curriculum builds on an idea of progression where new approaches and new aspects of each subject arise as pupils grow older.

By treating these three curricular aspects as partially independent, fertile spaces can occur; educationally creative intervals where the aim of predictable learning blends with consideration for all the unpredictable and immeasurable events that occur every day at school. Thus, the curriculum reveres the cultural heritage of the past, remains open and sensitive to the future and provides space for a rich, qualitative unfolding of life at school every day.

Knowledge and Ethics

Waldorf education stands as an ideal for the school years as a whole, whereby pupils elaborate on core motives of knowledge by engaging in active experiencing, emotional commitment and thoughtful understanding. The concept of *knowledge* in the Waldorf curriculum includes abilities that are practical, emotional, theoretical and social. In addition to the mental aspects of knowledge, Waldorf education thus recognises elements of bodily, situated, and intersubjective cognition. Subject matter thereby becomes fields of development for pupils. This presupposes an ethical view on how knowledge is dealt with at school. Knowledge understood as participation in the world, as a competence for taking action, implies that the curriculum should be ethically oriented towards active and formative qualities of knowledge.

Seen in a global perspective, the world is dependent on a knowledge that focuses on society and nature as a whole and on a knowledge concerning the consequences of changing or influencing nature's cycles and processes. There is, likewise, a need for deep and inclusive understanding of the world's different cultures and societies. Through pupils' learning to know and understand their world and its history, a foundation is created for future activity and innovation. Knowledge stands in

Waldorf education as a mediator between the values and potentials of the individual child on the one hand and the opportunities and demands of society and nature on the other. A school, in which pupils cultivate basic knowledge, skills, and competence, has a great moral responsibility.

An essential, ethical aspect of the school's way of teaching is a well-rounded frame of reference, connecting knowledge and skills to a greater arena of phenomena. Waldorf education makes certain value choices in creating a moral context for the knowledge with which pupils work at school. Teaching is marked by a deep respect for the greatness and diversity of nature and for cultural differences and uniqueness. An element of reverence is thus expressed in Waldorf education's approach to knowledge. The ability to reflect critically also belongs to this same ethical understanding of knowledge.

In an advancing knowledge society, the school should assist pupils in establishing a basis for independent acquisition, interpretation and comprehension of available information, as well as awaken their interest and desire to create new knowledge. Such a basis is being laid by, among other things, the inclusion of artistic and craft-based modes of working. In these activities, pupils are faced with material resistances and corrections when something is created and brought to realisation. An orientation of values can take place in a careful choice of materials and modes of expression. Working with art and handicrafts can thus contribute to the development of a practical and ethical intelligence. In crafts, pupils work mainly with natural materials of high quality. As far as possible, Waldorf school buildings and grounds are made of aesthetical and sustainable materials. Thus, the school supports sustainability and emphasises that, to the greatest possible extent, pupils will encounter a qualitatively shaped materiality at school.

The Waldorf curriculum comprises a broad range of subjects but the ways of working within each subject often promote concentration and deep learning. This in-depth perspective allows every school year and every theme to be experienced by the pupils as new and expanding. Working in thematically concentrated blocks gives teaching an exemplary character and provides teachers and pupils with time for deepening elaboration and reflection. The principle of concentration, combined with the progression from what is familiar and specific to the global and more abstract, creates an important educational and ethical foundation for the acquisition of knowledge. Below are some examples of how an ethical relationship to knowledge and teaching can be maintained in practice.

Many Waldorf Schools work together with a farm where pupils can experience plants, animals and people in a living agricultural setting. Every season brings its own activities and experiences placing pupils in contact with pre-industrial life rhythms and tasks. It is also usual for pupils to tend a school garden, taking part in cultivating vegetables, herbs and flowers. Excursions to forests and fields, mountains and fjords are, likewise, a part of a class's world of experience. These activities seek to create bonds with nature and with archetypical tasks belonging to nutrition and domestic life.

Storytelling emphasises a contextualising mode of teaching, on many levels. The unfolding events of a story can speak to corresponding events in the pupils' own individual experience or imagination. A story usually differs from a factual account by having a specific, tangible frame in which to impart the content. During the first school years, folk tales, legends and myths from different cultures seek to create resonance, inspiring pupils' imaginative development as well as laying the ground for further acquisition of knowledge in later years. This type of storytelling combines specific depictions of nature and environment with ethical messages. A story can become the inspiration towards a deeper understanding of nature, culture and human relationships, while at the same time conveying its subject matter. This oral form of teaching and its accompanying dialogues in the classroom play a large role in the Waldorf School. A living interchange between

pupils and teachers seeks to create an atmosphere of trust and aims at fostering a socially embedded understanding, rooted in mutual respect and recognition.

In the higher classes, teaching shifts more towards comprehension and discovery of laws, causalities and relationships in both sciences and social studies. For example, specific descriptions of historical events and people can be followed by a discussion of ideas and societal structures that lie behind them. Likewise, the pupils' own reasoning can come to the forefront when, for example, the teacher poses questions in such a way as to allow the pupils themselves to discover the principles behind James Watt's steam engine. By including biographical and general historical information, the scientific, personal and social consequences of Watt's invention can be examined and evaluated by the pupils. The class may even decide to put on a play from this era, portraying the lives and conditions of industrial workers, to give artistic expression to this historical period.

From an ethical perspective on knowledge, the challenge of the school is to guide pupils towards discovering interconnectedness, innovative thinking and interpreting overarching perspectives. A reservoir of basic knowledge makes a good beginning but this knowledge will not seem real or vital unless it is based in personal experiences of connectedness and in practical competences. The role of knowledge in the Waldorf School aims at being part of a greater task of striving to help pupils find their place in the world and giving them the insight and courage to enact change. True knowledge implies insight into self and the world, united with a capacity for action.

Arts and the Art of Teaching

Art and artistic activities pervade most aspects of Waldorf education. Ideally, this encompasses the teaching of all subjects, school architecture, teacher education and collegiality and social relations of the school.

Waldorf education recognises a kinship between the idea of education towards freedom and the school's practice of artistic activities. Just as freedom and responsibility belong together, artistic expressions are realised in the encounter with different framing conditions and resistances. In Waldorf schools, curricular subject contents represent such framing conditions for the use of arts. All school subjects provide material for artistic processes. Art provides an arena for exercising and practising skills, interdisciplinary discovery, comprehension and the awakening of creative powers interconnected with subject knowledge. Subject teaching and artistic work modes are understood as having a mutually enriching relationship. Art in its own right is highly revered in Waldorf education but it is simultaneously perceived as a tool and companion in education; a source of subject elaboration and comprehension, to deepen experiences and knowledge.

In the Waldorf School, on the one hand, the teacher shapes instruction artistically; on the other hand, the ways in which pupils learn are accompanied by artistically inspired modes of working. Thus, the school upholds the principle that both teaching and learning are strengthened by integration with artistic ways of working. The very nature of art indicates that its expressions can be varied to suit different teaching situations and needs. Artistically-formed teaching can connect general subject matter to an individually created 'dramaturgy' or 'colouring'. The content of instruction is thereby made specific and the teacher's commitment and enthusiasm can be made apparent. Likewise, pupils are given the opportunity to make their own choices in processing the current learning themes. Wherever art is integrated into school pedagogy, spaces for creativity and deeper understanding of the subjects are afforded for both teachers and pupils.

A look at class activity throughout the school day can illustrate how artistic endeavours and aesthetic awareness are present to a great degree. In Primary School, the day usually begins with a main lesson, where activities such as singing, recorder playing, movement, recitation and often

some kind of social game initiate the day. Then follows a dialogue between pupils and teacher. The pupils have slept on new information processed the day before and are now able to ask and answer questions relating to comprehension and the implications of yesterday's subject matter, the goal being to foster a good culture of classroom dialogue. After the discussion follows pupils' own work. This often takes the form of pupils writing, drawing and creating their own workbooks in which they make an individual record and contribution to the topics on which they are working. In addition to the workbook, the Waldorf School uses a range of other processing tools in which the artistic, the practical and the theoretical are integrated. A main lesson will often conclude with the teacher introducing new material. Depending on subject and class, the teacher may use various other art-inspired methods. This can be storytelling in which historical material is visualised and dramatised, or it can be aesthetically-presented experiments in physics or chemistry, rhythmical movements connected to mathematics, or drawing or modelling in biology, to name but a few possibilities. Later in the day, pupils meet with corresponding aesthetically organised instruction in foreign languages, mother tongue and mathematics.

In addition to the artistically adapted instruction in theoretical subjects, actual art and handicraft subjects are given a significant place in the curriculum, both in Primary and in Secondary School. Pupils usually work several hours a week with subjects such as music, eurythmy, drama, painting, drawing, modelling and a range of handicrafts. In these subjects, technique and practice are emphasised alongside aesthetic expression. Just as the theoretical subjects contain artistic work modes, there is an attempt to bring methodical, technical, historical and other theoretical elements to art and handicraft subjects, all in keeping with the philosophy that theory and practice are interwoven.

In addition to art and artistic work modes, art itself plays a prominent part in the shape of the school buildings and grounds. A number of Norwegian Waldorf Schools have used an anthroposophically-inspired architectural style for the design of their buildings. This kind of architecture is unique in its variation of form and rich use of colour. The buildings themselves should be functional as well as creating an aesthetic framework for life at school.

The Workbook, Pupil Activity and Learning Processes

Subject matter and school activities are, to a large degree, presented and led by the teacher. The teacher's central role in Waldorf education is balanced by granting the pupils time and rich challenges in their own learning processes and in working together with peers. The pupils' processing and adaptation of the learning contents generally take place one day after the subject has been presented in teaching. Both teachers and pupils sleep on the topic before it is brought up again in common discussion and further individual work. The composition of an individual workbook is a widely-used practice in central theoretical subjects, such as mother tongue, mathematics, social studies and the sciences. The workbook contains both a description and a processing of the core knowledge from the actual instruction. In the early years of school, the workbook is a means for pupils to practise the use of letters and numbers and create form drawings, as well as drawings from the teacher's storytelling. As part of the very first reading and writing instruction, pupils write simple sentences from the stories told by the teacher. This helps promote pupils' textual fluency and the workbooks will contain texts copied from the blackboard, dictations and independently generated texts in many genres. Independent investigations and reflections and generally freer thematic ways of working increase with age. From the fifth and sixth grade, pupils increasingly write their own independent texts and summaries of the lesson. They also draw on other printed and digital sources in addition to the teacher's presentations. Working independently with subject matter in such ways allows pupils greater insight into their own learning.

The workbook is given a conscious aesthetic form both in respect to language and visual quality. This creates a constant exercise of mother tongue language mastery and varying techniques of illustration. In this way, writing skills and creative expression are constantly practiced on an interdisciplinary basis. Digital technology is integrated into the repertoires of working with the different subjects.

Besides the workbook, Waldorf education uses a range of other ways of working. This can be everything from drawing, painting and modelling to composing poetry or, for instance, an anatomy class project in which the class sculpts parts of the human skeleton. Other common assignments can be in-depth essays, the use of exercise books in mathematics or languages, or more extensive projects in which pupils individually or collectively work on different themes to be presented, in widely varying forms, to the rest of the class. In some subjects, a printed textbook is used in addition to the workbook. The pupils' independent work takes place every day at school and also as homework.

In Upper Secondary School, an increasingly greater degree of subject immersion is expected. At the same time, pupils are expected to take greater responsibility for their own learning. This culminates in the final years' individual thesis; a year's immersion in a self-chosen theme or project connected to a specific subject area. A competent supervisor guides the pupils in their research process, involving an independently chosen topic, self-guided development of work-methods and a public presentation. The thesis usually has a written part as well as a practical-artistic section. The project concludes with an oral presentation before a larger audience and is assessed by an external examiner. Such a comprehensive process points beyond the general compulsory school years and aims at preparing pupils for further studies.

Digital Skills and Information Technology

In the course of very few years, digital technology has changed the world. Never before has a technological revolution been so all-pervading or influenced humankind and nature in such a complex and comprehensive manner. Digital technology is characterised by, on the one hand, its invisible presence in the organisation of almost every function of society and on the other hand, the central place digital media occupies in the workplace, in education and in recreation. Unnoticed technology simplifies life and work and comes into focus by playing a crucial role in production, communication and entertainment.

In a short time, this ever-present digital technology has created completely new forms of activity. Thoroughgoing interactions between humans and machines have become possible. A digital culture has arisen in which texts, numbers, images and sounds can be used, combined and communicated with a huge degree of freedom. Everything points to this being merely the beginning, suggesting human beings of every age will, in the close future, be using and creating digital technology to an increasing extent.

Digital technology poses a many-levelled challenge for teaching and learning. Waldorf education, which places equal weight on the two perspectives of child and society, asserts that digital media has a self-evident place in education, legitimised by this technology's central position in society as a whole. On the other hand, it is necessary to consider what consequences the use of digital media has for the development of children and youth and to reflect on its influence on their culture, on their ability to learn and to communicate. Such considerations aim at creating a nuanced and dynamic picture of digital technology and its role in Waldorf education.

In this context, a general educative attitude in Waldorf education implies that the role of digital technology should be seen in relation to the entire course of school years and to the developmental

structure inherent in the curriculum. The place of digital media in education should be related to pupils' potentials to learn and develop and be seen in an interdisciplinary perspective. Principally, it can be said that the visible aspect of digital technology should be mastered during the school years in a way that is independent, functional and conscious. The more hidden aspects of technology should likewise be dealt with in that pupils gradually develop reflective and critical skills relative to the use and presence of digital technology.

In Waldorf education, digital competence will involve elements of:

- *craft*: practical user-skills
- *art*: abilities of expression in digital media
- *communication*: using social media, learning platforms, etc.
- *theoretical knowledge*: understanding of hardware and software, the ability to acquire and use digital information
- *learning through educational software*
- *critical reflection and judgement*: netiquette, source critique, assessment of consequences of technology use and active and reflective participation
- *compensation*: reinforcement of physical movements, sensory skills, relationships to human beings and nature; increased focus on non-technological/non-mediated experiences

The Waldorf outlook is that the principles of learning in the first years of school, with a strong focus on practical physical activities, movement and richly composed sensory experiences, will act as an important foundation for the further development of digital competence. The presence of a living, resonant language, plus music and arts and crafts, educate and develop precisely those basic skills, later to be used with digital tools. The teacher's presence as a responsible, partaking and mediating adult creates space for an engaging and situated learning during the first school years. In the interaction among children and their teachers, something unexpected occurs every day, for better and for worse. The practical life experience that grows out of the daily interpersonal improvisation creates an ethical foundation for the freer ways of interacting made possible within digital cultures and forms of communication.

In the kindergarten and the first school years, therefore, use of digital technology plays a very small role. This period is dedicated to practical forms of learning, to companionship, to sensory and physical activities that are not based on digital technology. Such activities are justified by central Waldorf educational ideas on knowledge, learning and human development. In the Primary School classes, a basis for digital competence is built via the development of cooperation and basic physical skills. Teaching begins with the familiar and the practical and gradually expands to include abstract knowledge and digital modes of working. This emphasis on non-mediated experience continues throughout the school years, while a digital competence is developed gradually, in parallel with this.

In Classes 4-6, pupils become acquainted with basic forms of digital technology. User skills in simple text and image processing are developed, as well as in communication via social media, e-mail and the Internet. The role of technology as a tool is emphasised and discussions take place about netiquette and 'digital ethics'. A balance is continuously sought between building on the skills pupils are already mastering and challenging them with learning new skills and contents.

In lower Secondary School (Classes 7-9), a more technical understanding of digital technology comes to the fore. How is a computer built? What is it made of and how do its components work together? What kinds of software exist and how are they used? In Waldorf education, this kind of information plays an important role because it is intended to contribute to pupils' independence and to enhance their potential for creativity and participation. Over the years, pupils become proficient

in the use of digital technology and integrate it into their schoolwork, through various kinds of digital 'workbooks' and artistic expressions. The development of an understanding of digital culture is, on the one hand, connected to developing ethical and critical judgements. On the other hand, project work allows for genuine experiences of both rewarding and challenging ways of communication and collaboration in the digital world. Pupils are also made aware of how they can contribute to advancements in both commercial and open-source software.

In upper Secondary School, digital tools are increasingly integrated into the pupils' schoolwork and modes of expression. Alongside strengthening user skills and technological comprehension, comes reflection and assignments that explore both the potential and challenges of digital media. Digital technology, at this stage, can be integrated into most subjects, either as a tool for communication, presentation and information gathering, or as a theme in itself for deepened understanding and reflection.

Block Teaching – The Structure of the School Day

In the Waldorf School, mother tongue, mathematics, social studies and sciences are taught in blocks, usually lasting from 2 to 5 weeks. The school day begins with an extended lesson, between 90 to 120 minutes long: this is referred to as the *main lesson*. During these weeks, the class is occupied daily with one specific subject: an invitation to a deepened immersion for both pupils and teachers. This work mode offers good possibilities for projects, group work and interdisciplinary cooperation. The character of the main lesson period also allows for independent and investigating activities by the pupils.

The main lesson is followed by various subject lessons. Subjects, which require regular practice and systematic skill building, are taught in regular weekly lessons throughout the year. Certain subjects, like mother tongue and mathematics, are taught in both regular lessons and in blocks of main lesson time. The school strives to arrange the schedule so that mother tongue, foreign languages, mathematics and certain art subjects are placed in the middle of the day, while physical education and handicrafts are situated at the end. This structure is based on the idea of a three-fold division of the school day. The school day begins with theoretical subjects, continues with subjects that emphasise the repetition and practice of skills and concludes with subjects involving physical activity and acts of will. This makes it possible for conscious and unconscious processing of theoretical subjects through the other subjects as the day progresses. The school day is, in this way, also granted a rhythmic variation intended to promote pupils' well-being.

Assessment

The forms of assessment used in Waldorf education are an integral part of its pedagogy and correspond to the principles of assessment for learning. Assessments are given relating to the contents of the curriculum, its progression and learning goals. The purpose of assessment is to stimulate pupils' learning and to bring challenges of comprehension to consciousness, while encouraging and increasing each pupil's insight into their own development and supporting their faith in their own abilities and potentials. Teachers' response to pupils' work is given in a respectful and caring manner, contributing to mutual collaboration and accord between pupils, parents and teachers. Assessment forms a basis for adapted learning and aims at helping pupils to take responsibility for their own learning.

Traditionally, the Waldorf School has been free of grades and examinations. Pupil schoolwork was assessed in the form of a written statement containing descriptive feedback. In 2006, a system of number grades was initiated to provide pupils with a final assessment in the third and final year of Secondary School. Graduating pupils can be given a written report, in addition to grades.

Beyond grading in the third year of Upper Secondary School, the Waldorf School uses a wide spectrum of forms of assessment, from ongoing advice and comments via systematic oral and written feedback to the comprehensive 'end of year report', or yearly assessment, given after each school year. In all feedback, positive aspects of pupils' schoolwork are emphasised, without being in conflict with a principle of truthful and realistic evaluation.

In accordance with Waldorf educational ideas of development, assessment and feedback constantly take on new forms adapted to pupils' levels of maturity and self-insight. In the first school years, a yearly written report is addressed directly to parents. The pupils receive consecutive assessments in the learning situations and through dialogue with their teachers. Later, pupils also receive the yearly written report.

The assessment takes into consideration each pupil's individual circumstances in learning. Of great importance is a good, developmentally inspiring dialogue between teachers and pupils, in which a common understanding of the assessment criteria and potential ways of improvement is the goal. Levels of attainment receive greater weight with time, according to the pupil's increasing ability in self-assessment. From the middle and into the higher classes, pupils take increasingly greater responsibility for their own learning, based on self-insight and independent assessment of their schoolwork. Peer assessment, in which pupils give each other feedback, can become part of teaching in the later years of school.

The ideal of an education towards freedom is connected to the development of self-insight on many levels: academically, personally, socially and practically. Self-assessment skills are therefore practised in all years of school. The ability to make free, individual self-assessments, which is the goal of the highest classes, is all about raising awareness of the reasons for own choices and of understanding both individual potentials and limitations. It is an intention for all school years that the assessment given by the teacher should be, as much as possible, in agreement with the pupils' self-understanding.

The Teacher

The responsibility of the teacher spans from manifesting the pedagogical tact required to earn the trust of children and young people, to conveying content creatively, to local curriculum development and administrative tasks. On the one hand, the teacher acts as a companion and supporter to the child; on the other hand, as a representative of society in dialogue with children and their parents.

Establishing fruitful and trusting relationships between teachers and pupils is of great importance in Waldorf education. Pupils' learning and development is stimulated when they feel respect for their teachers and trust in the teacher's ability to teach well, to make fair judgements and to lead a class. To care for and develop this pupil-teacher relationship constitutes a pillar of Waldorf education. Ideally, the teacher should be an 'authority', in the best sense of the word. A fruitful dialogue and mutual respect between school and home is, likewise, a support to pupil well-being, learning and development.

Much of the teaching in the Waldorf School is teacher-led and of a conveying nature. Teachers are daily challenged to create living, motivating and informative lessons. The use of storytelling and the goal of teaching as an art provide teachers with the task of combining an appropriate academic level and interdisciplinary knowledge with an engaging pedagogy. Waldorf schoolteachers, therefore, need to maintain constant personal development, widening their academic horizons, extending their teaching abilities and maintaining their social responsibilities. The teacher's commitment to self-development relates to assisting children and young people on their developmental paths.

Developmental Motifs in Waldorf Education

Seven-Year Periods

In Waldorf pedagogy, specific developmental motifs are connected to each of the first three seven-year periods of life. The first seven-year period is primarily oriented towards developing the will and to the maturing constitution of the body. In the Waldorf Kindergarten, learning takes place through imitation and play connected to a wide spectrum of sensory and motor experiences.

Pupils in the second seven-year period are motivated to learning through good and trusting relationships with their teachers. In the first part of this period, the pedagogy is aimed towards experiential and imaginative abilities, through practice and artistic work modes. Later, more and more weight is placed on comprehension attained through reflection.

In the third seven-year period, teaching is oriented primarily towards the pupils' own judgements and their new potentials for ethical engagement, through which they can develop a responsible and loving relationship with their world.

The curriculum is divided and differentiated within the seven-year periods such that every school year receives its own thematic profile. Some years are more strongly influenced by new experiences and subject matter; others are characterised by processing, practising and immersion in already familiar themes. Waldorf education emphasises certain age groups in which completely new challenges for the pupils are the focus of learning. These blocks of new material coincide with a threefold division of the seven-year periods, such that important new themes and work modes are introduced when pupils are circa 7, 9-10, 12, 14 and 16-17 years of age.

After Class 1 and the introduction of writing, reading, mathematics and processing pictorial or imaginative stories, are two school years in which these skills are honed and developed further. Practice and developing proficiency are key in this period. At the end of year 3 and beginning of year 4, new elements are introduced. Basic grammar and science topics, such as zoology and geography, take on a broader scope and a new character. The pupils' abilities in comprehension and abstract reflection face a distinct challenge at this age. The curriculum for 12-year-olds bears a similar leap in the direction of more independent thinking and exercise of judgement. Physics and geology are introduced here, with new learning methods and new kinds of cognitive understanding. At age 14, the school again introduces new and important elements focusing, among other things, on a broader comprehension of cultural, democratic and moral perspectives in history and social studies. Likewise, the transition from Class 10 to 11 brings with it new and more existential challenges. One of many possible examples here is the legend of Parsifal, which forms the basis of the 17-year-old's reflections on every human individual's responsibility for his or her own action and life-choices.

Such a rhythmic division throughout the school years grants pupils space and time for maturation, growth and reinforcing experiences of confidence in relation to school subjects. The markedly new learning experiences can renew the school experience, making it vivid and varied. This means that the pupils can experience and value their own development and at the same time build upon knowledge, skills and competences in relation to school subjects. The table below gives an impression of some of the main features of Waldorf education's developmental ideas. There is, obviously, a continuous development within these seven-year-periods implying that, for example, long before the age of 14, the pupils are versed in more independent ways of thinking and making judgements.

A Keyword Overview of the Seven-year Periods in Waldorf education

0-7 years	7-14 years	14-21 years
Learning via imitation	Learning via the teacher's presentation	Learning by means of own thinking and judgement
Sensory stimulation, play	Experience, practice	Appreciation and love of the world, understanding
Willing	Feeling	Thinking
Development of the physical body	The rhythmic life-processes: the etheric body	Communication, relations: the astral body

Individual and Social Developmental Motifs

Waldorf education is founded on a spiritual idea of development, in the sense that the pedagogy is motivated by the full spectre of human developmental needs. Seen in this perspective, neither talent in a certain area nor specific learning disabilities should necessarily prevent pupils from being able to follow the class progression. Waldorf pedagogy seeks to assist and challenge every pupil according to his or her needs and abilities. An overall assessment of each pupil's situation will also take into consideration the value of learning in a community and that of giving or receiving help when needed.

The span of cognitive development within a class will show a wide range of abilities. There may be several years' worth of discrepancies between the pupils' level of mastery in some subjects. However, pupils with vastly differing predispositions can, with enthusiasm and reward, immerse themselves in an engaging lesson where lively story-telling, art and handicraft activities take place. The social community in the class is of primary importance for Waldorf education. Extra help or extra challenges are given to those who require them. Specially gifted pupils receive additional assignments and challenges to maintain their motivation and their demands for appropriate learning challenges. In addition to the principles of adapted learning, there is an emphasis on promoting solidarity and community. The children should learn to feel secure when they are together and undercurrents of competition are limited.

By including the importance of community in the classroom, Waldorf education strives for an equal weight between the development of individual knowledge and skills on the one hand and social competences, on the other. Artistically inspired modes of teaching make room for every individual to be challenged and to develop within the general classroom environment. What each pupil learns in the course of a lesson will always be unique. Every listener apprehends the teacher's narrative differently and its instructional content will, likewise, be individually absorbed. Teaching methods are composed in such a way that some elements emphasise collective work more strongly, while other themes or exercises are intended towards individual processing.

This rich selection of ways for pupils to process instruction gives teachers and parents a good basis for assessing learning and development. The teacher can observe and assess the pupils' skills against a background of multiple and varied performances. Thus, the school and the home can form a picture of each pupil's situation and the teacher can arrange the teaching so that it stays challenging yet remains within the pupil's grasp.

Below follows an overview of the main pedagogical themes in the three seven-year periods.

Thinking-Feeling-Willing

Developmental structure in Waldorf education calls special attention to the way a child's will, feeling and thinking make up differing themes of development and different arenas for learning and growth. Each of these arenas affords the processing and development of particular knowledge, skills and competences. Knowledge in this regard is perceived as bodily, situated and intersubjective in addition to the conscious cognitive handling of information. It is valued on many levels, from tacit to explicit, from practical to abstract. Bodily and experience-based knowledge forms a foundation for subsequent cognitive learning and development.

In the first phase of life, Waldorf pedagogy is directed toward the will. The basic idea is that the child meets and becomes acquainted with world phenomena through his or her own activity. These will-based experiences create a foundation for perceptual and feeling-based experiences in the second seven-year period. Waldorf education emphasises that the development of cognition can build on previous emotional and will-based experiences. This can create a holistic frame of reference and a sense of connection in the growing person.

When thinking and feeling work together in a fruitful way, affection enters thinking and stimulates enthusiasm and the joy of understanding. In addition, when a person's will contributes constructively in an appropriate manner, he or she will be capable of acting ethically. Good cooperation between thinking, feeling and willing enables the human being to partake positively in the events of the world.

The significance of thought, feeling and will in Waldorf education is differentiated such that the path from willing, via feeling, to thought represents a great all-encompassing learning structure, lasting throughout the three first seven-year periods. Below is given a short presentation of the idea of thought-feeling-will and how its potential for learning is expressed in the curriculum.

The Role of the Will in Pre-School Education

In Waldorf education, the child's will-activity constitutes a primary point of orientation in the first seven-year period. The reasoning behind this includes the viewpoint that, in order for higher cognitive and emotional skills to develop freely at a later stage, they require a rich grounding in practical experience. The pedagogy is therefore designed to encourage learning and development through activity. Children at this age have a drive to deal actively with their environments and this drive is met and taken up by the educators. The focus is on letting the child live out his or her need for activity in a productive way. As their task here, educators become active and caring role models for the child. The kindergarten creates an adapted environment where children are invited to sense, imitate, move, speak, contemplate and play. Children can be active most of the time and participate in activities alongside adults, without adults always taking a leading role. A breathing and rhythmic variation structures the activities throughout the day, week and year, creating an atmosphere of security, predictability and expectation for the child. The idea is that the environment surrounding a child's activity, in time and space, affords will-based learning and development opportunities.

On visiting a Waldorf Kindergarten, one meets with beautiful and imaginative toys made of natural materials. One encounters educators who consciously invite imitation and inspire the child's need for being physically active. Much of the time is devoted to free play. Otherwise, the day is filled with singing, storytelling, rhythm and rhyme, movement games, painting, drawing and modelling. A healthy meal is prepared and eaten together. At this age, going for walks and playing outdoors in nature is similarly justified by the emphasis on sensory-motor experience in the first seven-year period.

The Importance of Experience in the Second Seven-year Period

In the second phase of life, Waldorf education draws attention to the pupils' interest, motivation and ability to enter a learning situation with pleasure and joy. Throughout the early school years, practically every world phenomenon is dealt with in the curriculum and is presented in such a way as to engender the pupils' emotional engagement. Teaching in this period moves through a rich landscape of feeling. Here the pupils and their teachers go exploring together. Through teaching that is emotionally inclusive and artistically shaped, the child learns about numbers and letters, about animals and plants, people and minerals. Instruction can acquire a deeper meaning for pupils when it is associated with something they appreciate or actively dislike. Even negative emotions have a vital role in education. Teachers thus consciously include the whole register of emotion in their lessons. This rhythm between seriousness and humour, concentration and free expression is what gives the school day freshness and a truthful character.

In Waldorf education, emotionally oriented teaching bears a connection to developing good habits. This is the case for work habits, as well as for creative, emotional and intellectual habitual attitudes. Habits are fostered via conscious repetitions in teaching and learning. Repetition is thus an important element in developing both will and feeling. In art and handicrafts, as well as in mathematics, languages, and many other subjects, there is an inherent element of repetition. By systematically repeating various tasks, pupils learn what it takes to reach their goals. In such a way, feeling and will are woven together in a natural manner.

The Role of Thinking in Adolescence

During the middle and upper years, teaching is directed, in expanding degrees, towards pupils' ability in self-directed thinking and judgement. The teacher organises lessons in such a way as to provide pupils with the opportunity to reflect on the context, to draw conclusions and create their own arguments. Subject matter is now presented as phenomena, a way of teaching that brings the active thought-process of the pupils into focus. To a greater extent, the teacher asks questions and pupils provide the answers.

At this point, connections, consequences and perspectives come to the fore in history and social studies, while history as a narrative becomes more of a backdrop for reflection and interpretation. The sciences are taught via experiments in physics or chemistry, often preceded by the teacher's presentation of the historical context of the experiment. From the basis of observation, previous knowledge and individual reflection, the pupils reach a phenomena-based understanding of the explanatory models used in the sciences. Artistic subjects are also given a more theoretical treatment during these years. It can be said that in general, following puberty, Waldorf education entails a consciousness-raising way of working through the subjects and themes that pupils have already met in more emotional and experiential ways in earlier school years.

To a youth of 16 years, it is important to be able to take a stand on what is right and what is wrong and to be able to form one's own ideas of good and bad. Young people have a real responsibility to themselves in furthering their development toward adulthood. Their personal judgement is tested continuously, both inside and outside of school. Adolescents need an ability, rooted in their own minds, to think: that is, a thinking ability connected to their own emotions and powers to act. Self-knowledge and world-knowledge are parallel motifs for Waldorf education in this period.

Three Constitutional Developmental Motifs

The second main theme in Waldorf education emphasises that the human 'I' is active in a living, sensitive and relation-making body. Waldorf education emphasises that the physical body, the living and the relational must all be approached in differing ways throughout the course of schooling.

Physical-Organic Body Development

Waldorf education aims to stimulate the child toward a good physiological body-development up to the age of seven. The entire body, especially the brain and nervous system, undergoes a comprehensive maturation and development during these first years. Active use of the senses and of movement is stressed in order to support this development.

Physical development progresses further until after 20 years of age, but for Waldorf education, the first seven years of such development is a main concern. The idea is that children in this period can best exploit their potential for physical development through forms of learning based in the senses, in imitation and in movement. These are activities supporting and stimulating the immense transformations occurring in the nervous system, the internal organs, muscles and the skeleton. An education that emphasises cognitive learning and memorisation of abstract concepts can, from a Waldorf perspective, possibly disturb this organically-directed growth.

When the child is ready for a new stage of development, this shows itself through changes in his or her relation to the environment. A more content-based language comprehension, a more independent memory and a generally more internalised experience, characterises the transition to the second seven-year period.

Rhythmic Life-Processes

The transition to the second seven-year period implies that the child is now receptive to a new kind of learning that takes place more mentally. In the same way that the first phase of development is tied to physical development, the theme of the second seven-year period is all those life-processes that take place in time. In humans, both organic and mental processes are permeated by rhythm. The heartbeat, breathing and sleep are the most obvious representatives of the manifold rhythms that apply to human life.

Waldorf education works out of the experience that emotional engagement stimulates biological rhythms in the organism. It is a widely known phenomenon that pulse and respiration are activated when the emotions are engaged. By emphasising a rich emotional repertoire in teaching, the intention is also to strengthen the pupil's rhythmic constitution.

Throughout this second seven-year phase, Waldorf education seeks to support life-giving processes in children. This is achieved through an artistic and consciously-formed rhythmic way of teaching. The entire lesson plan, as well as each individual lesson, is shaped intentionally with regard to a beneficial, supportive rhythm. Theoretical and artistic subjects are combined to create a holistic and varied daily and weekly rhythm. Stillness and movement, seriousness and humour, music and shape-forming elements seek to create richness and enthusiasm in each lesson. Sleep plays another vitally important rhythmic role in Waldorf pedagogy. By allowing the child to sleep overnight on the new material before moving on to further processes, the teacher allows him or her to be stimulated by the night's forgetfulness, to then be enriched by the next day's conversation. Good work habits, practising the ability to remember, repeated exercises of art and handicrafts, as well as the establishment of skills in subjects such as mathematics, writing and reading, are all central themes in this phase of development.

Waldorf education considers it important for children from the age of seven to connect with their closest adults in a new way. While imitation and free play characterise education in the first seven-year period, the second period stimulates the child's ability to internalise what the teacher shows as an example. The teacher, as an accepted and trusted adult, is a vital educational resource for the child at this age. Through being a true and natural authority for the pupils, the teacher can assist their learning and development in a beneficial way.

During the second seven-year period, Waldorf education turns towards, among other things, the child's appreciation of nuances in the teacher's linguistic expressions. Good use of the art of storytelling is therefore emphasised in teaching. A rich and conscious use of spoken images thus seeks to arouse the pupils' awakening ability to think. Just as historical culture reflects a development from the time of mystery through the great epic age and up to the birth of philosophy, so teachers vary their method of presenting material from year to year. Throughout this seven-year period, the experiential aspect of teaching is accentuated. This is preserved even when a more scientific approach is introduced from age 12. In general, the final years of this second seven-year period move gradually more in the direction of self-reflection and judgement, characterising the time after puberty.

Communication and Relation

Puberty implies huge upheavals on both a mental and a physical plane. At the same time as the body becomes capable of reproduction, a shift occurs towards independence in the young person's soul-life. Sympathies and antipathies, interests and dislikes are experienced more deeply and more individually. Adolescents develop new abilities in communication with other people and with nature. These abilities can be united by a comprehensive concept of love: an individual and responsible way of relating to the world. Qualitatively new relationships can now arise.

These new abilities are challenged in Waldorf Schools by teaching which seeks to support a harmonious development of judgement and the ability of self-reflection. Good judgement arises from clear thinking and a rich ground of experience. A similar prerequisite for good judgement is the presence of interest, good will, freedom from prejudice and an ability to critically reflect.

Having learned about world phenomena in an emotionally engaging way during the second phase of life, pupils can grasp a renewed and more conscious interest in their surroundings, following puberty. Waldorf pedagogy aims at supporting adolescents in establishing new and deeper ways of relating to their environments and to fellow humans. At school, pupils practise more conscious ways of collaboration as a foundation for both action and acceptance. The developmental theme for this age group is communication and building relationships in the widest sense of the word.

Teaching is granted a phenomenological character by presenting scientific experiments or historical facts to pupils in such a way that they can discover and express its principles. Since antiquity, the word 'phenomenon' has contained a double meaning and can express both that which is observed outwardly and that which comes to light in the arena of consciousness. The word's root, *fanos* (Gr.), means light or torch and can, in many ways, be seen as a key concept for Waldorf education in the third seven-year period. By means of a teaching approach that focuses on the phenomena of the world and via an individually practised comprehension that casts light on these phenomena, Waldorf education seeks to stimulate a respect for nature and fellow human beings. A true communication involves the ability to create a sounding board within one's own mind for world phenomena, as well as being capable of sound judgement and action.

The Role of the Senses

Waldorf education stresses sensory experiences as a source of development, vitality and enjoyment. Rich sensory experiences combined with active movements and emotional openness in childhood provide a fertile ground for the development of central functions in the brain, the nervous system and other bodily organs. The child experiences the world and his or her own body through the senses. The senses give consciousness its basic material; for the educator, a deeper knowledge of the nature of the senses is a tool to better understand the developmental and learning processes occurring in the child.

In Waldorf education, the senses are treated as a whole, as working together and complementing each other. Only through the coordination of several senses can an experience of reality arise in the observant human being. An example of this is how the eye perceives both light and colour phenomena and spatial or moving qualities. Objects can be described according to shape and colour. An unconscious conclusion occurs, an activity of thought, when seeing the colour is connected with a perception of shape. According to Rudolf Steiner, this mental coordination of different sensory modes contributes to experiencing the perceived as real. That which is perceived by only one sense lacks this dimension of reality. With such a perspective, it is apparent that, for example, the senses of movement and balance have an important role to play in complementing the other senses. On the whole, Waldorf education seeks a conscious interplay between composite and combined sensory perceptions. Eurythmy is an example of how pupils practise the unifying of different senses. Eurythmy is a movement-art involving music or poetry. Ideally, a poem or a piece of music is made visible through movement. The pupils move while listening to language or music. The listening is active because it is accompanied by expressive movements. Ideally, all school subjects should include elements of sense coordination. This brings learning closer to reality.

In Waldorf education, various forms of movement are used in connection with both ordinary and therapeutic language learning. There are fine connections between motor skills, movement and language development. The concept of language can, in an educational context, be extended to include communication in a wider sense. Thinkers such as Paracelsus and Jacob Böhme wished to understand nature as an expression of language; to read the book of nature. Correspondingly, movements have been shown to be pedagogically useful conveyors in many learning situations. The school subjects are given a 'voice' through physical activity. A Waldorf teacher can use movements in practically every subject during the early school years. In mathematics, the multiplication table is taught rhythmically with jumps and claps and in writing, the teaching of the formation of letters is derived from painting and drawing exercises. Throughout, coordination between hand and mind is sought. This enriches knowledge, makes it accessible and lays the foundation for a fruitful competence of action.

This interconnection of the different sensory experiences gives teachers and educators important perspectives in their work. Touch, rhythm and movement strike chords in the child and are understood to work deeply together with the development of social and cognitive skills. In this way, experiences in nature, play and artistic activity are given an extended educational importance. To learn with the body brings experiences relevant to life and produces a creative atmosphere in which theory and practice can blend together.

Development of Thinking

The methodological structure of the Waldorf curriculum is designed to foster the development of thought in varying ways throughout the course of education, from kindergarten to the final year of Upper Secondary School.

Developing abilities in thinking is a complex process. Most areas of life provide skills that are necessary and relevant for the thinking process: endurance, concentration, flexibility, precision, tolerance, imagination, wonder, etc. The ability to think is built upon all the experiences an individual has undergone. Waldorf education emphasises a systematic development of different aspects of the thought process. The goal is that pupils, upon completion of school, can master the full spectrum of thinking.

Preschool Age – The Six-year Olds

In Waldorf education, does the pre-schooler's movement and sensory perception form an important foundation for the further development of cognitive thinking? In many of his lectures on education, Rudolf Steiner points to a connection between motor development and the growth of language and cognitive skills. The body has its own 'grammar' and logical structure. Through an educational focus on movement, coordination and balance, there is awakened in the child a sense of relations, of cause and effect. A pedagogy that persistently works with sensory perception is, at the same time, affording children's awareness of size, weight, form and space. These are core concepts pointing to a correspondence between experiences within the world of movement and the foundations for thinking.

Imitation represents another important early phase in the development of thinking. When a child learns by imitation, it is presupposed that the child perceives and connects himself or herself to the other through movements. This experience includes an internalisation; a deeply shared communication. The transition from sensing to movement involves a creative moment. Imitated movements come about after an inner processing of that which was imitated. In free, spontaneous play, for example, the child experiments further with movements assimilated via imitation. The child explores through play. This is a comparable process to what goes on in reflective thinking, which later develops in adolescence. Reflective thinking requires first an internalisation of the problem at hand, its manifestations and consequences and further understanding is dependent on an exploratory thought process before it can reach a conclusion. Waldorf education prioritises a rich, bodily, situated and intersubjective cognition during childhood.

Classes 1-3

From Classes 1-3, Waldorf pedagogy aims at preserving and developing the motor-sense experiences from the first phase of life. An element of imitation will be present in later learning, but now a new and important dimension of thinking is added: a focus on the pictorial and imaginative.

A child listening to a story rich in imagery visualises the described events in his or her inner eye. Children have a vast capacity for visualisation and can be completely enthralled by their own pictorial participation while the teacher is speaking. The pupils shape and colour what is described. Even when the narrative only hints at the elements present, a child's imaginative power can fill out and individualise the story. A landscape drawn in simple story-telling terms can be interpreted and elaborated by pupils to include mountains, water, plant life and varied skies. The teacher can see the different perceptions of only one story in the pupils' different drawings and artwork.

Narrative material for the first three years of school includes folk tales and legends, as well as lively stories of animals, plants and natural phenomena. Pupils listen to biographical stories of life and work in the pre-industrial age and colourful stories from the Old Testament. Through such narrative accounts, they become acquainted with essential identity-forming motifs from culture and nature. An important foundation for self-understanding and world insight is thus laid. When pupils also exercise their own communicative and story-telling abilities, they have been invited into the process of forming their own identity from an early age.

Several qualities necessary for cognitive development are practiced through pictorial narratives. Philosophers as early as Plato and Aristotle showed how thinking is related to imagery. Metaphors and other linguistic figures play an important function in learning something new. Pictures can form a bridge between known and unfamiliar subject matter. The creative and innovative sides of thinking are also bound to pictorial and metaphorical ways of understanding.

Creating inner images is a rich and complex process. An imagined picture always reaches for a completion or a fullness; it will have its horizon and perspective. A child visualises through transforming a spoken description into his or her own internal image. A process in time is transformed into a spatial experience. The child's consciousness becomes a 'scene' where events unfold in an understood and self-generated sphere. The inner activity experienced here provides a platform for the further development of thinking. The child learns to hold a visualised content in consciousness; he or she learns to relate events to each other in narrative time, while simultaneously connecting this inner activity to his or her own creativity. Although the child takes no direct role in the story, the child's own pictorial representation of the narrative includes him or herself in the action. The beholder is present in what is seen.

Classes 4-5

In Classes 4-5, new principles of understanding come into play. A large part of the fourth year curriculum is about discovering and studying analogy and interdependence. Analogy is a precursor to the more exact causal thinking. Analogical relations can be described from their internal or external relatedness. An octopus resembles a human head, a verb in grammar expresses an action, a numerator in fractions is related to its denominator and the child's home environment forms a starting point towards getting to know the entire map of the country. Learning and understanding build on the creation of connections between world phenomena. Bridges are built from the known to the unknown. The ability to make associative analogies is exercised throughout this school year. In comparison with pictorial perception, what analogous thinking loses in the whole perspective, it gains in sharper delineation of certain phenomena's interrelations. A stronger element of direction and activity is brought into the process of comprehension.

Class 5 introduces yet another new aspect of thinking. In both the arts and sciences, connections can be made which are more than analogous but which cannot be expressed as purely causal concepts. For example, in botany, the teacher emphasises that a plant should be studied in reference to its environment. How do light, wind, and moisture conditions affect the plant's growth? Which plants thrive in a specific environment? How do differing environments affect the appearance of the same species? Through this approach, pupils discover dynamic and complex principles. Correspondences are no longer as free as in the world of analogy, yet there is still room for variation and individual qualities. This is an appreciation of mutable and plastic causality.

Class 6

Class 6 represents a milestone in Waldorf education, seen from the perspective of the evolution of thinking. During this school year, science subjects are given a large space in the curriculum. Subjects such as physics, geology and history now emphasise an understanding in terms of cause and effect. An example of this is the experiment of the monochord from a period in acoustics. Pupils observe how the tone of a string sounds an octave higher when the string length is halved. Even a small inaccuracy in the length of the string leads to a disharmonious interval. The relationship is absolute and precise: one-half the length creates the octave. There is no room for mutability or invention in this natural law. Cause and effect here present a clear, mathematical relationship. Such strict causal relationships are rare and only limited to certain aspects of science but this solidifies an

important stage in the development of thinking. Clarity and predictability are the qualities exercised in this kind of teaching.

In history, a similar strict cause and effect cannot be employed. Instead, the learning aims at an understanding of history in terms of interpreted relations between the past and the present. Possible connected lines of events are presented and possible consequences of past events are discussed with the pupils. The posing of contrafactual 'what if' questions is introduced as a means to debate and reflect on what could have happened.

In mathematics, algebra is introduced in connection to calculating area and percentage. The use of letters as representatives for number values is, in itself, an exercise in abstract thinking. Algebra implies an orientation towards the ideas behind mathematics in comparison to a more operative use of numbers. Abilities in abstract thinking lead to greater freedom of understanding. This is an important step on the way to freeing the thought process from the world of sensory perception.

Class 7 and 8

In Class 7, teaching and learning are directed towards a holistic understanding in which all previously rehearsed ways of thinking are brought into use. In history, pupils study the Renaissance, the great journeys of discovery, the Reformation and the Industrial Revolution. In science, chemistry is introduced with combustion and human biology connected to anatomy and health. In these subjects, pupils must consider the whole picture. Pupils' individual attitudes and social awareness are involved and challenged. Elements of adventurous visualisation are combined with abstract technical information. Pupils can experience their school subjects having a specific bearing on their own lifestyle and personal choices, while at the same time bringing information about faraway conditions or abstract facts. The new challenges in thinking in these years are synthesis and the development of personal judgment. Practising and developing such thinking skills assists the further formation of identity in adolescence.

Class 9 and Secondary School

In the classes 9-12, Waldorf pedagogy aims at extending and fulfilling the development of thinking. An increasing degree of abstract thinking is exercised alongside an extension of the horizon of knowledge. In Class 9 and 10, pupils work with basic notions of both science and society. An overview is offered in most subject matter, as well as phenomena, which lend themselves to a relatively straightforward understanding. Thermodynamics and classic mechanical physics are examples of this. These two years allow room for maturation of thought. Pupils work to gain security in their judgments.

In Class 11, pupils' perceptions are given a new challenge. Schoolwork raises more existential questions that cannot be treated as straightforwardly as in the previous two years. Studies in medieval culture and history point to deeper aspects of existence. Questions concerning faith and doubt are given a more prominent place. Electricity and cellular biology also invite extended inquiry into the complex nature of life and matter. Pupils' individual ethical relationship to a subject's inherent questions is accentuated throughout.

In Class 12, teaching orients itself anew in themes that shed light on the individual's place in society. Academic work is given a holistic character when, for example, the theory of evolution is taught in biology. On an individual level, pupils are invited to combine academic comprehension with self-knowledge and social competence. Independent work on the final year thesis is an integration of knowledge, experience, research and personal choice and direction. The goal is to stimulate thought that is grounded in the pupils' own world of experience, while at the same time

inspiring and encouraging the attainment of new skills and knowledge connected to a widened social responsibility and understanding of others.

History and Organisational Form

The Waldorf Curriculum in Historical Perspective

The first Waldorf School was established in 1919, in Germany. The industrialist Emil Molt of Stuttgart was originally committed to reforming the public school system after World War I. When this failed, he arranged for funding and facilities in which to start a school for the children of workers at the Waldorf Astoria Cigarette Factory, where he was director. Rudolf Steiner was asked to lead the faculty of teachers and to develop the school's educational principles and practices. In 1926, Elisabeth Grunelius established the first Waldorf Kindergarten, attached to the school in Stuttgart.

In Germany and in most other countries, these schools retain the name Waldorf Schools. In Norway, the first such school, established in Oslo in 1926, took its name from the founder of its educational principles and was thus called the Rudolf Steiner School in Oslo. Steiner Schools (*steinerskoler*) is the expression used in Norway.

Waldorf education took shape at a time when parts of Europe still lay in ruins after World War I. From their first days, the schools had an explicit intention of playing an active role in the development of new social forms. Through a new educational policy that no longer rested in the cultural and political heritage that led to war in Europe, Waldorf education intended to create a fertile environment for something new. The ideal of a responsible and democratically anchored autonomy for schools and for the whole educational sector was presented as an important revitalising principle.

During the years 1919-1924, Rudolf Steiner delivered over 200 lectures on education. These lectures presented a range of educational ideas and pedagogical practices aiming at a renewal of education. Thus, the foundations of the Waldorf curriculum were shaped by a cultural and social commitment.

The Waldorf School curriculum emerged at a time when widespread educational reforms were taking place in Europe and progressive education was being developed in the United States. The primary goal of these educational reforms was to break away from curricula and teaching practices that had a one-sided focus on cognitive and memory-oriented learning. A more holistic and inclusive curriculum was developed. Attempts were made to integrate practical, artistic and theoretical activity in schools. The pedagogy became largely centred on the child and children's abilities, motivation and capacity to learn. In many ways, Waldorf education can be said to belong to the educational reform movement but Rudolf Steiner sought a balance in the Waldorf curriculum by also acknowledging the social perspective at a time when educational innovation was almost entirely child-centred. Steiner emphasised subject matter knowledge and skills to a greater extent than many reform educationalists. He argued for the central role of the teacher in class leadership and supporting pupil learning and in this connection spoke of the art of teaching. The Waldorf curriculum arose precisely at the crossroads between comprehensive ideas about children's developmental needs and thoughts about what is necessary for living in economic, democratic and cultural communities.

Waldorf education is international and its curriculum has formed a base for creating Waldorf Schools and Kindergartens on every continent in the world. It can exist within differing religious, cultural and economic conditions. The broad and comprehensive conception of a curriculum, which

arose from the founding ideas of Waldorf education, has been realised within widely varying social and cultural conditions. This inclusive and broadly conceived curriculum vision has made it possible for Norwegian Waldorf Schools to maintain their curriculum structure throughout a time in which public schools have radically changed their curricula several times.

Appendix 1

About the public school Core Curriculum for Primary, Secondary and Adult Education in Norway

A comparison between *Overview – Ideas and Practices in Waldorf Education* and the Norwegian public school *Core Curriculum* shows two different approaches to the same themes and questions. *The Core Curriculum's* emphasis on the meaning-seeking, creative, working, liberally educated, social and environmentally aware human being is valued and preserved in the Waldorf curriculum, though in a different language and with many additions. The final and summary part of *The Core Curriculum*, concerning the integrated human being, poses several paradoxes, or dilemmas, relating to the tensions between the individual and society. This theme is preserved in the Waldorf curriculum, in both the overview part and in the description of each subject's learning outcomes.

The relationship between the *Core Curriculum* and the Waldorf curriculum can best be described in the classic twin concepts of necessity and adequacy. The *Core Curriculum* is in no way contradictory to the Steiner curriculum but neither is it adequate as a description of Waldorf education. The content of the *Core Curriculum* is in no way in conflict with the content of the Waldorf curriculum.