

Austria (Middle School) Curriculum Standards

The presentations offered by The Educated Choices Program provide support for teaching and learning of the following standards:

Nutrition & Household Internship, grades 6-7		Environment and Modern Agriculture	Healthful Eating
Grades 6-7	The aim of the compulsory elective lessons is to offer the pupils an expansion and deepening of their educational horizon according to their interests. • By interweaving theoretical content with practical activities, both cognitive and sensorimotor, emotional and social dimensions of learning as well as dynamic skills are to be addressed. • The focus is on the application-oriented deepening and expansion of knowledge and insights into the compulsory subject of household economics and nutrition. • The practical lessons offer the opportunity to train all competences (technical, social, methodical and self-competence). The aim is a proper, health-promoting, resource-saving and sustainable handling of company, work and foodstuffs as well as an ergonomic workplace design in order to be able to implement the work process smoothly. A corresponding food culture should be made tangible.		



Didactic principles (for all classes):

- The didactic principles provided for in the compulsory subject are to be applied.
- Particular attention should be paid to action-oriented teaching, with emphasis on independence, personal responsibility and the ability to work in a team.

Pupils should be encouraged to engage in responsible consumer behavior.

Intercultural learning is to be made possible for them by dealing with their own cultural identity and gaining insights into other cultures.

The possibilities of information technology are to be used for organization, calculation, nutritional value calculation, creation of menu plans and Internet research on specific topics and presentations.

• The organization of the learning processes has to take place through learning on the model, through "learning by doing" and mutual exchange of experiences.

A fortnightly four-hour block makes sense.

Superordinate cross-semester competencies

- Apply the general basic rules of occupational safety, ergonomics and hygiene
- Use household technology properly, rationally and in a way that conserves resources
- Apply nutritional aspects in practice
- Carry out cost and nutritional calculations
- Implement preparation and cooking methods efficiently
- Implement recipes



	 Know and observe quality assurance and quality control of food and work processes Get to know and practice a corresponding table and eating culture 	
Grade 6	 3rd semester – competence module 3 Use the kitchen equipment professionally, know the basics of good hygiene practice, occupational safety and organization and apply them to food production Know and apply basic rules of eating and table culture Mention quality criteria of selected foods Complete tasks such as preparation techniques, basic recipes, cooking methods. Carry out portioning and serving of food under supervision 4th semester – competence module 4 Competence Implement selected basic recipes independently Implement seasonal and regional cuisine Mention quality criteria of selected foods and judge dishes based on criteria Perform tasks independently and in a team 	
Grade 7	 5th semester – competence module 5 Competence Implement selected recipes of international and themed cuisine Evaluate convenience products and enhance them in terms of 	



 nutritional physiology Assess the quality of selected food and dishes using sensors and compare them using criteria Perform tasks independently and in a team 	
6th semester – competence module 6	
 Competence Implement selected recipes of international and themed cuisine Assess the quality of selected foods, dishes and drinks using sensory methods and compare them using criteria Create menu plans based on given criteria Perform tasks independently and in a team 	

Physics, grades 6-8		Environment and Modern Agriculture	Healthful Eating
Grades 6-8	Physics lessons have to make a subject-specific contribution to the general educational mandate of the school, in particular the ability to: independently acquire knowledge, demonstrate responsible treatment of the environment and responsible, rational participation in social decisions, and thus promote the acquisition of scientific skills in a special way. The students should acquire a rational world view, actively recognize the specific working methods of physics and their 		



importance as a basic science and

 learn to assess what contributions physics can make to personal and social decisions.

Furthermore, they should

- grasp the importance of physical phenomena and concepts in everyday life, in the environment and for knowledge of the world and use them for their lifestyle.
- In addition, the students should gain insights into the provisional nature of scientific knowledge and the nature of natural sciences.
- They should recognize the contribution of physics to the solution of individual, local and global problems as well as physics as a creative achievement of mankind and thus as a cultural asset.

The aim of physics lessons is for students to have a basic scientific education in order to be able to act competently in scientific questions.

 Therefore, in physics lessons, the focus should be on the learning outcomes, i.e. the technical skills and abilities acquired by the students that are actively available to them, and not on the working through of catalogs of topics by the teacher.

Contributions to the areas of education

- Language and communication
- Acquire a basic vocabulary of physical terms; be able to differentiate and translate between everyday language and technical language;
- Gain insight into the necessity and effectiveness of symbolic descriptions; be able to describe, record, argue and present physical facts;
- Be able to critically evaluate presentations of natural sciences in media (newspapers, films, internet, etc.).



People & Society

- Understand physics as a basic science (knowledge of the world) and as an applied science (shaping the world);
- Taking responsibility for the sustainable use of resources;
- observe ethical standards in the socially relevant implementation of physical knowledge;
- develop rational ability to criticize social problems (e.g. climate change, energy, mobility); career choice.

Nature and technology

- Gain insight into the causes of natural phenomena and the associated physical laws derived from them;
- Develop causality thinking and recognize the limits of predictability based on practically or in principle incomplete system information;
- Acquire scientific ways of thinking and working;
- Understand physics as the basis of technology.

Health and exercise

- Understand the basics of health-promoting behavior;
- Develop safety awareness in the home and on the road, recognize opportunities and dangers in dealing with electricity, lasers, ionizing radiation, etc.

Creativity and design

- Understand scientific research as a creative process;
- Design of physical and technical applications;
- Demonstrate creativity in problem-solving processes and model building.



Didactic principles (5th to 8th grade):

Basic physical education consists of three main areas.

- Competency-oriented physics lessons should be designed in such a
 way that competencies from all three following areas are acquired
 and promoted each semester on the basis of the learning content.
- The competencies acquired in previous semesters in all three areas are deepened and expanded in the following semesters in the interests of sustainable competency development.

W: Expertise

In this area, students acquire physical knowledge and apply this knowledge in different contexts. Pupils demonstrate competence by

- describing and naming processes and phenomena in nature, everyday life and technology,
- dealing with information from specialist media and sources,
- presenting, explaining and communicating processes and phenomena in nature, everyday life and technology in various forms (images, graphics, tables, diagrams, formal relationships, models, ...),
- applying expertise in different contexts.

E: Experimentation and gaining knowledge

In this area, students acquire skills and abilities in dealing with physical working methods. Pupils demonstrate competence by

- formulating scientific questions and hypotheses about processes and phenomena in nature, everyday life and technology,
- planning, carrying out and recording a suitable investigation or experiment for questions,
- recording and analyzing data (arranging, comparing, measuring,



determining dependencies, assessing reliability) as part of scientific investigations or experiments,

• mapping and interpreting data through mathematical and physical models.

S: Justify points of view and evaluate them from a scientific point of view

- In this area, students acquire the ability to argue scientifically and to participate in social discourse.
- Pupils demonstrate competence by
 - recognizing the importance, opportunities and risks of applying scientific knowledge at a personal, regional and global level in order to be able to act responsibly,
 - distinguishing scientific from non-scientific arguments and questions,
 - reflecting on information from different reliable sources from a scientific point of view and from other perspectives (e.g. economic, ecological, ethical),
 - developing decision criteria for your own actions and review them from a scientific point of view.

The requirement levels (complexity) of the competencies of the three areas are divided into two levels:

- Reproduction and transfer services
- Reflection and problem solving

In addition, the following didactic principles apply:

- Physics lessons should be designed in such a way that they take into account the everyday experiences and ideas of the students.
- It is also to be geared towards the interests and previous experiences



	of the young people through the use of life world references and everyday contexts, also across disciplines. • A too early abstraction should be avoided, the achievement of conceptual understanding should be in the foreground. Modern media and technologies are to be used in physics lessons (in particular electronic data acquisition, interactive simulations, data evaluation and analysis and modeling) and extracurricular learning locations are to be included. Schoolwork • The time frame for school work in the 7th and 8th grades of the Realgymnasium and Oberstufenrealgymnasium with supplementary lessons in biology and environmental studies, physics and chemistry can be found in the section "Performance assessment" of the third part.	
Grade 6	Educational and teaching task, subject matter: 3rd semester – competence module 3 • Mechanics II: • Conservation of momentum; • rotation and conservation of angular momentum • Vibrations and mechanical waves: • Generation, • reflection and refraction, • diffraction and interference,	



- o resonance,
- standing waves

4th semester - competence module 4

- Basics of electricity theory:
 - Effects of electric current,
 - o simple circuit,
 - o current,
 - voltage,
 - electrical resistance
- Electrical energy:
 - Electrical energy and power,
 - energy supply from batteries,
 - o photovoltaics, etc.
- Fields:
 - o Basic phenomena of static electrical and magnetic fields,
 - concept of fields,
 - o charges as the cause of electrical fields,
 - o currents the cause of magnetic fields

3rd semester – competence module 3

- Orders of magnitude in the micro and macrocosm:
 - o position in the universe
- Mechanics:



	 Relativity of rest and motion, change in motion due to forces, Newton's equation of motion, linear and circular motion, conservation of momentum Conservation of energy and fundamentals of thermodynamics 4th semester – competence module 4 Vibrations and mechanical waves : Generation and properties Fundamentals of electricity : Effects of electric current, simple circuit, 	
	 current, voltage, electrical resistance, electrical energy 	
Grade 7	 5th semester – competence module 5 Electrodynamics: motor principle and induction Energy: Basics of conventional and alternative energy supply; energy transfer; Safety in handling electrical energy Electromagnetic waves: 	



- Generation and properties using the example of light and other types of electromagnetic radiation,
- wave optics,
- o visible and invisible part of the electromagnetic spectrum
- Radiation balance of the earth

6th semester – competence module 6

- Atomic physics:
 - Light as a carrier of energy,
 - o spectra,
 - o absorption and emission,
 - o model of the atomic shell
- Quantum physics:
 - special features of the quantum world,
 - o double-slit experiment,
 - o Heisenberg's uncertainty principle,
 - o statistical interpretation
- Insights into the development of theory and the worldview of modern physics

5th semester – competence module 5

- Basic phenomena of electromagnetic fields and electrodynamics :
 - motor principle and induction
- Energy:



	 Basics of conventional and alternative energy supply; energy transfer; Safety in handling electrical energy Electromagnetic waves: generation and properties using the example of light and other types of electromagnetic radiation, spectrum 	
	 6th semester – competence module 6 Radiation balance of the earth Atomic physics: Light as a carrier of energy, spectra, absorption and emission, model of the atomic shell Quantum Physics: Peculiarities of the Quantum World Insights into the development of theory and the worldview of modern physics 	
Grade 8	 7th semester Nuclear physics: structure and stability of the nucleus, natural radioactivity, ionizing radiation, nuclear fusion and fission; medical and technical applications Theory of relativity: Concepts of the special theory of relativity, basic idea of the general theory of relativity Particle physics: 	



 evolution of the particle concept, standard model, beginnings of the universe

8th semester

- Current Research:
 - Insights into current physical research
- Deepening and repetition of learning content from previous semesters

7th semester

- Nuclear physics: Structure and stability of the nuclei, natural radioactivity, ionizing radiation, medical and technical applications
- Theory of relativity:
 - Basic ideas of the special theory of relativity
- Particle physics:
 - development of the particle concept, beginnings of the universe

8th semester

- Current Research:
 - o Insights into current physical research
- Deepening and repetition of learning content from previous semesters



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	 Superordinate cross-semester competencies Apply the general basic rules of occupational safety, ergonomics and hygiene Use household technology properly, rationally and in a way that conserves resources Apply nutritional aspects in practice Carry out cost and nutritional calculations Implement preparation and cooking methods efficiently Implement recipes Know and observe quality assurance and quality control of food and work processes Get to know and practice a corresponding table and eating culture 		
Grade 6	3rd semester – competence module 3	/	/
	Use the kitchen equipment professionally, know the basics of good hygiene practice, occupational safety and organization and apply them to food		



	 Know and apply basic rules of eating and table culture Mention quality criteria of selected foods Complete tasks such as preparation techniques, basic recipes, cooking methods. Carry out portioning and serving of food under supervision 4th semester – competence module 4 Competence Implement selected basic recipes independently Implement seasonal and regional cuisine Mention quality criteria of selected foods and judge dishes based on criteria Perform tasks independently and in a team 	
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6th semester – competence module 6	
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Psychology & Philosophy, grades 7-8		Environment and Modern Agriculture	Healthful Eating
Grades 6-8	 The lessons in psychology and philosophy should enable a well-founded examination of the basic questions of life and offer orientation aids. In psychology lessons, the students should gain insight into the experience and behavior of people and receive impulses for self-reflection and a better understanding of their fellow human beings. The pupils should get to know therapeutic aids and facilities, but it is not the task of psychology lessons to provide therapeutic aids. The philosophy lessons are intended to give the students an insight into the main currents of Western philosophy in an exemplary manner. The confrontation with reality and its knowledge, the question of truth, values, the question of meaning and the legitimacy of social orders should encourage the students to get involved in philosophizing as a process. 		



The students

- are accompanied and encouraged in their development into independent people who are capable of dialogue and conflict,
- recognize the need for cooperation, social sensitivity and responsibility as a basis for democracy,
- acquire knowledge and skills that help break down stereotypes and promote equal opportunities and gender equality
- gain insights into the possibilities and limits of thinking and acting through argumentative discussion of past and present explanatory models,
- learn to select relevant information from the variety of content,
- are instructed in scientific work and encouraged to reflect on the diverse scientific and pseudo-scientific theories and speculations.

Acquired competences in psychology and philosophy are of lasting importance in the sense of a holistic education also outside the school context.

Contributions to the areas of education

Language and communication

- All areas of psychology and philosophy contribute to promoting linguistic and communicative processes:
 - o naming personal and social processes;
 - o express emotions and motivations in a differentiated way;
 - practice forms of conversation, deepen conversational skills and give constructive feedback;
 - grasp and understand the meaning of non-verbal communication;
 - o apply conceptual accuracy and develop argumentative



justifications;

- o recognize the limits of what can be said and described;
- encourage understanding reading through text work and compare texts from past epochs with current ideas.

People & Society

- The skills acquired in psychology and philosophy lead the students to reflected knowledge of themselves and their fellow human beings;
- they promote understanding of the social forms of living together and their change.
 - In doing so, reference should also be made to the causes and manifestations of social inequality structures (e.g. related to gender, social and ethnic origin).
 - The students are encouraged to critically examine the possibilities of different media and learn to select and interpret data.
 - Global communication and cooperation enable intercultural thinking and acting.

Teachers have to contribute to the promotion of a tolerant basic attitude also in the sense of an intercultural understanding.

• This includes the development of personal attitudes, judgement, the ability to take criticism, civil courage, respectful interaction with those who think differently and the willingness to act responsibly.

Nature and technology

- The students learn the methods of scientific knowledge acquisition and reflect their limits.
- They are made aware of the problem of the responsibility of scientists.
- You deal with the social and historical context of scientific knowledge,



in particular with scientific and technical progress and the resulting moral problems.

Creativity and design

• In addition to the theoretical analysis of creative processes, the students expand their spontaneity and flexibility through knowledge of alternative points of view and possible solutions.

Health and exercise

• The students get to know psychohygienic principles and deal critically with normality and health.

Didactic principles (7th and 8th grade):

Competence orientation means linking knowledge acquisition and application of knowledge.

- It expands the time perspective and emphasizes the long-term goal of increasing knowledge and skills, moving away from small-step learning goals towards more sustainability.
- This results in the following methodological consequences.

Exemplary learning

- Competencies are primarily acquired through exemplary content.
- Since the acquisition of skills requires an active and intensive examination of materials and subject areas, the didactic principle of "learning by example" is of crucial importance.
- This means, firstly, teaching with examples, and secondly, the conscious restriction to facts that have an exemplary character and can be considered the "foundations of PUP teaching".
- The fundamentals of PUP instruction are listed under Competencies and Content.



Orientation towards the example also takes into account the different depths of processing or levels of competence:

- Reproduce basic knowledge
- Link and transfer knowledge
- Reflect on what has been learned and use knowledge creatively

Competence orientation as a middle between instruction and action orientation

- When organizing the learning processes, a balance should be sought between instruction and action orientation.
- In principle, pupils should be strengthened in their independence and personal responsibility through open, self-organized forms of learning involving various media and information technologies.
- Suitable implementation options are, for example, independent structuring of work phases, research, planning and implementation of experiments as well as interviews and their evaluation.
- This helps to strengthen skills such as teamwork and presentation skills.
- Furthermore, the comprehensive communication skills of the students through forms of Socratic conversation, by practicing logically correct reasoning (e.g. by writing philosophical essays) and by training active listening.
- Pupils are to be encouraged to read original texts independently.
- Writing excerpts and minutes, keeping a psychological or philosophical diary and phases of reflection with feedback on the group situation are suitable for consolidating learning processes.

Role-playing games, imaginary journeys, thought experiments, drawings and other artistic representations, meditative contemplation of works of art, work with audio-visual impulses and information technologies are to be used to



promote creative potential.

Experience orientation

 Depending on the possibility, a connection to the living environment should be established by inviting experts or by visiting extracurricular institutions.

When working on the topics, it is important to ensure that the presentation is age-appropriate and relevant to the life situation of the students.

- This is based on personal experience and previous knowledge from other subjects.
- The contribution of Austrian researchers to psychology and philosophy should be included in the lessons.
- In general, attention should be paid to a balanced relationship between the competence levels of reproduction, transfer and reflection in the individual subject areas.

Emphasis on networking

A sustainable acquisition of skills is reflected in the networking of content. PUP promotes networking skills in three ways:

- Psychology + philosophy:
 - Here there are many possibilities, e.g. to link perception with epistemological questions etc.
- Cross-curricular (interdisciplinary):
 - The subject is interdisciplinary due to the diverse content and methods.
- Interdisciplinary:
 - o The PUP lessons offer a special way of combining action,



Grade 7	 5th semester – competence module 5 Aspects of scientific psychology Describe central terms (psychology, experiment, objectivity). Discuss differences between everyday psychology and scientific 	/	
	experience and theoretical analysis (e.g. addressing the image of man, addressing self-esteem, identity, the influence of role models and gender norms, learning reflection, dealing with conflicts). This results in a network of real-world experience and theoretical justification. Educational and teaching task, subject matter: Cross-semester competencies The PUP lessons can make a decisive contribution to supporting the personality development of the pupils, referring to their individual abilities, motivating them to lifelong learning (personal competence), imparting them knowledge and skills (professional competence) as well as the self-reliance of the to support pupils (social competence). Cross-semester competencies for psychology and philosophy are: Understand terms and use them in a differentiated way Compare knowledge from different subject areas Analyze and interpret texts, graphics and diagrams in a subject-specific manner Formulate appropriate questions Recognize and assess their own strengths and weaknesses Recognize dealing with content from psychology and philosophy as a personal orientation aid		



psychology

- Present and reflect on methods of psychology
- Establishing relationships between psychological knowledge and life practice

Phenomena of perception and perceptual processes

- Describe perception as an active and purposeful process
- Recognize errors in perception and become aware of them
- Record and analyze selective processes of perception
- Discuss perceptual influences

Cognitive processes and learning

- Reproducing models for memory and learning
- Compare and reflect on your own learning with theoretical knowledge
- Explain current findings on thinking

6th semester – competence module 6

Social Phenomena and Communication

- Describe and reflect on social phenomena
- Recognize and analyze forms of aggression and violence
- Present and differentiate communication processes

Development and upbringing issues

- Reflect phenomena of psychological development
- Recognize and reflect on the importance of various influences on development

Aspects of personality

 Describe human experience and behavior from the perspective of personality psychology



	Understand the meaning of emotionsDiscuss mental health and its impairments	
Grade 8	 7th semester Foundations of philosophy Describe the characteristics of philosophy and basic philosophical concepts Assess philosophical questions Describe and apply methods of philosophizing Aspects of epistemology and philosophy of science Analyzing and reflecting on approaches to reality and its possible interpretations Working on epistemological and epistemological issues Anthropological designs Distinguish and interpret anthropological concepts Draw on knowledge from various specialist areas for a reflective discussion 	
	 8th semester Fundamental questions of ethics Explain basic ethical positions and question them critically Work out differences in ethical concepts Develop and justify values in private, political and ecological issues 	

