



Erasmus + KA210 project
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POLOTECNICO FERMI-GADDA
Naples, Italy

“Healthy Nutrition”

A MULTIDISCIPLINARY LESSON PLAN-
School Year 2022-2023

*Nothing is More
Precious than Health*

Subtile:

*EAT HEALTHY, BE HAPPY!
Never too late to start...*



MULTIDISCIPLINARY LESSON PLAN

TITLE/NAME SUBTITLE	NOTHING IS MORE PRECIOUS THAN HEALTH EAT HEALTHY, BE HAPPY! NEVER TOO LATE TO START
SCHOOL YEAR	2022/2023
SCHOOL	Polo Tecnico "Fermi-Gadda"
SCHOOL SUBJECTS INVOLVED	English, Italian, History, Mathematics, Earth System Science and Biology, Physical Education
AUTHENTIC PRODUCT/TASK	<p>Creation of an illustrative brochure on the world of food that highlights not only the importance of proper nutrition but also the existence of different ways of eating that vary according to opportunities and different cultural models.</p> <p>Creation of a Google module to evaluate the approval rating and content acquisition.</p> <p>The disciplines involved will contribute to the realization of this task by creating specific elaborations / products, in which the skills mobilized by the knowledge / skills exercised are represented.</p> <p>In progress: Posters and / or Gallery of images, videos, PowerPoint and / or padlets that illustrate the phases of the work related to the theme.</p>
RECIPIENTS	Pupils of second year of secondary school (aged 14-15-16)
EUROPEAN KEY COMPETENCES	
1. COMMUNICATION IN FOREIGN LANGUAGES	- Master the English language for communicative purposes, also using the sectoral languages provided by the study curricula, to interact in different areas and contexts of study and work, at level \geq B1 of mastery of the European Framework of Reference for Languages (CEFR).
2. COMMUNICATION IN THE MOTHER TONGUE	- Ability to express and interpret concepts, thoughts, feelings, facts and opinions both orally and in writing (oral comprehension, oral expression, reading comprehension and written expression) and to interact adequately and creatively linguistically in a whole range of cultural and social contexts, such as education and training, work, home life and leisure.
3. MATHEMATICAL COMPETENCE AND BASIC SKILLS IN SCIENCE AND TECHNOLOGY	<ul style="list-style-type: none"> - Use the language and methods of mathematics to properly organize and evaluate qualitative and quantitative information. - Use the strategies of rational thinking in dialectical and algorithmic aspects to deal with problematic situations, developing appropriate solutions. - Use your wealth of knowledge on nutrition to assume responsible behaviors in relation to your lifestyle, health promotion.

	<ul style="list-style-type: none"> - Adopt a lifestyle aimed at protecting your health, having acquired the necessary knowledge and awareness of the functioning of your body. - Develop sensitivity to many diet-related diseases such as anorexia, bulimia, obesity, eating disorders in general. - Be aware of the effects of individual and collective behavior on health and therefore adopt appropriate lifestyles / based on their protection. - Understand the functioning and organization of production within a food industry with particular reference to the problems related to the forms and methods of the industry itself.
4. DIGITAL COMPETENCE	<ul style="list-style-type: none"> - Use and produce visual and multimedia communication tools, also with reference to expressive strategies and technical tools of network communication. - Use networks and IT tools in study, research and disciplinary in-depth activities.
5. LEARNING TO LEARN	<ul style="list-style-type: none"> - Actively participate in the activities by bringing your personal contribution. - Find, organize, use information from different sources to perform a given task; organize your own learning; acquire study skills.
6. SOCIAL AND CIVIC COMPETENCES	<ul style="list-style-type: none"> - Act autonomously and responsibly, knowing and observing rules and regulations, with particular reference to the National Constitution. - Collaborate and participate by understanding people's different points of view.
7. SPIRIT OF INITIATIVE AND ENTREPRENEURSHIP	<ul style="list-style-type: none"> - Solve problems encountered in life and work and propose solutions; assess risks and opportunities. - Choose between different options; make decisions; act flexibly; design and plan; know the environment in which you operate also in relation to your resources.
8. CULTURAL AWARENESS AND EXPRESSION	<ul style="list-style-type: none"> - Recognize and appreciate different identities, cultural and religious traditions, with a view to dialogue and mutual respect. - Establish links between local, national and international cultural traditions, both in an intercultural perspective and for the purpose of study and work mobility. - Establish links between local, national and international cultural traditions, both in an intercultural perspective and for the purpose of study and work mobility. - Recognize the geographical, ecological, territorial aspects of the natural and anthropic environment, the connections with demographic, economic, social, cultural structures and the transformations that have occurred over time. - Understand the communicative, cultural and relational aspects of body expressiveness and the importance of the practice of motor-sports activity for individual and collective well-being.
COMPETENCE GOALS	<ul style="list-style-type: none"> - Be able to use oral communication to interact with others, in the formulation of judgments on problems concerning various cultural and social areas. - Recognize discomfort resulting from eating disorders. - Elaboration of texts or presentations with the use of traditional and digital tools on what has been learned. - Ability to orient oneself in the complexity of the past - present by understanding different opinions and cultures. - Recognize in your body structures and functions at macroscopic and microscopic level, its potential and

	<p>limits.</p> <ul style="list-style-type: none"> - Interest in the main problems related to the use of science in the field of food health. - Take care and control of your health through a correct and balanced diet. - Knowing how to recognize, research and apply behaviors to promote "well-being" in order to a healthy lifestyle and prevention by raising awareness among their peers. - Knowing how to search and select information and synthesize it in the presentation of a final product made with the use of tools knowing how to search and select information and synthesize it in the presentation of a final product made with the use of IT Computer Tools. 	
SUBJECTS	Knowledge	Skills
English/Italian (Native Language)/History	<ul style="list-style-type: none"> • Specific vocabulary related to the subject matter. • Modalities and techniques of the different forms of written productions: reports, texts, poems, role play, maps and conceptual schemes. • Aspects that characterize the changes that have occurred over time in relation to well-being and nutrition. 	<ul style="list-style-type: none"> • Use the language respecting the morphosyntactic conventions to create texts of different types appropriate to the purpose and the recipient. • Knowing how to elaborate the nutritional data sheet of a food. • Knowing how to obtain explicit and implicit information from expository texts, to document oneself on a specific topic or to achieve practical purposes. • Report, in a synthetic and schematic way, on topics of study, both in written and oral form, also using specific supports (diagrams, maps, computer presentations, etc.), including the use of new communication technologies.
Mathematics	<ul style="list-style-type: none"> • Proportions and percentages • Construction of aerograms: drawing and reading. • Data processing systems 	<ul style="list-style-type: none"> • Knowing how to apply the calculation of proportions to determine the caloric, vitamin, protein intake of a quantity of foods. • Knowing how to process with aerograms the quantities of proteins, carbohydrates, vitamins, mineral salts and fats. • Knowing how to calculate the caloric, protein, vitamin intake of carbohydrates and mineral salts based on age, sex, physical activity.
Earth System Science and Biology	<ul style="list-style-type: none"> • Nutrients and their functions. • The food pyramid and the Mediterranean diet. • The importance of nutrition in relation to lifestyles. 	<ul style="list-style-type: none"> • Consider the nutritional value of foods in relation to the content of nutrients. • Being able to associate nutritional aspects and lifestyles with well-being and disease prevention.

	<ul style="list-style-type: none"> • The digestive system. • The function of foods and their nutrients. • Metabolism, energy requirements and diet. • Importance of prevention for the onset of pathological conditions. • Rules of hygiene and behaviors for health care. • The main diseases related to eating disorders. 	<ul style="list-style-type: none"> • Manage your body correctly, interpret the state of well-being and malaise that can derive from its alterations. • Use your wealth of knowledge to behave responsibly in relation to your lifestyle. • Consider the risks associated with poor nutrition and the choices to avoid them. • Reflect on behaviours that harm health. • Understand and explain the principles of a balanced diet.
Physical Education	<ul style="list-style-type: none"> • Importance of proper nutrition in sports. • The effects of motor and sports activities for the well-being of the person and the prevention of diseases 	<ul style="list-style-type: none"> • Make appropriate choices in the food sector. • Recognize movement as a useful tool to preserve one's health. • Choose the right food products based on the task to be performed.

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<p>FOUNDING CORE OF THE PREVAILING SUBJECT</p>	<p>It has been shown that proper nutrition is essential both to ensure the individual an optimal state of nutrition and to protect and ensure the quality of life. For this reason, the founding nucleus provides a path aimed at bringing students closer to a healthy and correct diet and the abandonment of incorrect eating habits. In 2007, the WHO (World Health Organization) launched a European Action Plan for Food and Nutrition Policies that identifies four health themes: diseases related to eating habits, obesity in children and adolescents, micronutrient deficiency, and food safety disorders.</p>
<p>CORE OF THE COOPERATING SUBJECTS</p>	<p>English: Cognitive survey of eating habits diversified for different geographical areas History: Historical evolution of eating habits Mathematics: Statistical survey Italian (native language): Cognitive survey on the eating habits of adolescents in contemporary society. Sport sciences: sport and nutrition.</p>
<p>TEACHING METHODOLOGIES AND STRATEGIES</p>	<p>Frontal lesson Brainstorming Troubleshooting Cooperative learning Circle time/debriefing Peer tutoring Participatory/dialogic lesson Group work by level bands Group work for heterogeneous groups Operational laboratory</p>
<p>MEANS AND TOOLS</p>	<p>Classroom Laboratory Territory Monitor Touchscreen PC Textbooks Reading selected passages Movie Newspaper articles Administration of cards/questionnaires</p>
<p>TIMING</p>	<p>December-January (by the 1st week of February)</p>

	Phase	Subject	Timing
DEVELOPMENT PHASES	Design - Presentation of the lesson plan - Work organization - Final Product Illustration	<ul style="list-style-type: none"> • All disciplines involved 	2 hours
	Organizzazione e produzione del lavoro - Survey of one's eating habits - Statistical survey - Collection of the data provided and construction of a histogram. - Analysis and comparison of collected data - Conversations and debates about the value of proper nutrition and the importance of a varied and balanced diet - Identification of sites of interest and collection of material	<ul style="list-style-type: none"> • Mathematics/Science 	2 hours
	Organization and production of work - Viewing educational films concerning the energy needs and nutrient absorption by the human body. - Analysis and debate	<ul style="list-style-type: none"> • Native Language/Science 	2 hours
	Organization and production of work - Search for information related to the consequences of incorrect eating habits and eating disorders. - Creation of concept maps and tables containing nutritional information for the different selected foods.	<ul style="list-style-type: none"> • Science 	4 hours

DEVELOPMENT PHASES	Organization and production of work - Readings of passages related to health and well-being - Comparison and deepening of the knowledge of peoples and their traditions and eating habits to understand the interaction between food, culture and society. - Production of prose texts related to the topic.	<ul style="list-style-type: none"> • Native Language/History 	5 hours
	Organization and production of work - Culture comparison: "British breakfast vs breakfast in your country". - Writing: preparation of a written text (with the support of guiding questions) aimed at an "Oral Presentation" on one's personal habits.	<ul style="list-style-type: none"> • English 	4 hours
	Organization and production of work - Pursuit of well-being through exercises that promote harmonious body growth.	<ul style="list-style-type: none"> • Sport Sciences 	4 hours
	Final product presentation	<ul style="list-style-type: none"> • Groups involved 	2 hours
TYPE OF VERIFICATION	Administration of questionnaires, multiple choice tests, quizzes with use of online resources for automated checks: Google forms, ThatQuiz, Kahoot.		
EVALUATION	In itinere: observation and monitoring, by individual teachers, of the work phases, deliveries, respect of times, learning of contents. Final: assessment of the level of adequacy and clarity of content		