



# 4<sup>th</sup> Grade

## Curriculum Milestones and Competencies



## 4<sup>th</sup> Grade International Baccalaureate Transdisciplinary Themes & Inquiry

### Who We Are

An inquiry into the nature of the self; beliefs and values; personal, physical, mental, social and spiritual health; **human** relationships including families, friends, communities, and cultures; rights and responsibilities; what it means to be human.

#### Inquiry

Plants and animals (including humans) have unique and diverse life cycles that include birth, growth, maturation, reproduction, and death.

### Where We Are In Place and Time

An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations, from local and global perspectives.

#### Inquiry

Ancient civilizations have shaped contemporary global communities.

### How We Express Ourselves

An inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values; the ways in which we reflect on, extend and enjoy our creativity; our appreciation of the aesthetic.

#### Inquiry

Media uses a variety of strategies to influence thinking.

### How the World Works

An inquiry into the natural world and its laws; the interaction between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.

#### Inquiry

Energy is converted, transformed, stored and used to support human progress.

### How We Organize Ourselves

An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.

#### Inquiry

Government systems influence the lives of individuals, and individuals can influence government systems.

### Sharing the Planet

An inquiry into rights and responsibilities in the struggle to share finite resources with other people and with other living things; communities and the relationships within and between them; access to equal opportunities; peace and conflict resolution.

#### Inquiry

Economic development leads to environmental challenges.



## ITALIAN | ITALIANO 50% instructional time

### Reading | Lettura

- Compare information presented in different texts in Italian | *Confrontare informazioni provenienti da testi differenti*
- Collect information from various kinds of texts in Italian | *Cogliere informazioni da testi di vario genere*
- Express a personal opinion in Italian on texts read in Italian | *Esprimere un parere personale sui testi letti*

### Writing | Scrivere

- Develop stories through writing in Italian, including main ideas & accurate spelling | *Produrre racconti scritti contenenti le informazioni principali e curando l'ortografia*
- Express in writing experiences, emotions and mindsets | *Esprimere per iscritto esperienze, emozioni, stati d'animo*
- Write texts in Italian that reflect diverse types and purposes | *Scrivere testi di diverso genere (diario, lettera, racconto)*

### Italian Language | Lingua Italiana

- Expand word knowledge and origin (etymology) using a dictionary | *Ampliare il patrimonio lessicale usando il dizionario*
- Understand the figurative meaning of words | *Comprendere il significato figurato delle parole*
- Recognize the structure of a standard sentence in Italian | *Riconoscere la struttura di una frase minima*

### Listening, Speaking and Presenting | Ascoltare, Parlare e Presentare

- Participate in class discussions in Italian expressing personal opinion | *Partecipare a discussioni in classe per esprimere la propria opinione*
- Retell experiences in Italian in a clear and logical structure and voice | *Raccontare esperienze in modo chiaro e logico*
- Formulate questions in Italian in response to what has been heard | *Formulare domande pertinenti dopo l'ascolto*



## ENGLISH 50% instructional time

### Reading

- Demonstrate phonics & word recognition, fluency when reading in English
- Communicate key ideas & details of author, and craft & structure of text
- Develop integration of knowledge and ideas through text features - or in themes or characters throughout a series
- Extend range of reading & increase level of text complexity

### Writing

- Identify text types and purposes
- Participate in production & distribution of writing including use of varied technology tools
- Extend skills in research to build and present knowledge
- Actively expand range of writing

### English Language

- Demonstrate conventions of standard English
- Expand English vocabulary acquisition and use
- Develop knowledge of English language

### Listening, Speaking and Presenting

- Communicate comprehension and collaboration
- Participate in presentation of knowledge and ideas, including use of varied technology tools



## MATHEMATICS

### Number Sense

- Generalize place value understanding for multi-digit whole numbers
- Use place value understanding and properties of operations to perform multi-digit arithmetic
- Extend understanding of fraction equivalence and ordering
- Build fractions from unit fractions
- Understand decimal notation for fractions, and compare decimal fractions

### Pattern and Function

- Use the four operations with whole numbers to solve problems
- Gain familiarity with factors and multiples
- Generate and analyze patterns
- Master mental math skills in addition, subtraction, multiplication and division

### Data Handling

- Collect, represent and interpret data

### Shape and Space

- Draw and identify lines and angles, and classify shapes by properties of their lines and angles
- Classify two-dimensional figures into categories based on their properties

### Measurement

- Solve problems involving measurement and conversion of measurements
- Geometric Measurement: understand concepts of angle and measure angle



## HISTORY, GEOGRAPHY, SOCIAL STUDIES

Learning outcomes are from the Italian Ministry of Education Standards, Pollyanna Racial Literacy & California State Standards

### History

- Use sources of different nature for the reconstruction of historical phenomena
- Represent, in a social and historical framework, the historical information that flows in the present from one's territory
- Compare aspects characterizing the different societies studied, even in relation to the present
- Obtain and produce information from graphs, tables, historical maps, iconographic findings, and consult texts of various kinds, both manual and non manual, paper, and digital

### Geography

- Read historic-geographic maps related to societies studied
- Analyze the main physical characteristics of the territory, local and global facts and phenomena, interpreting geographical maps of different scales, thematic maps, graphs, digital elaborations, statistical reports related to socio-demographic and economic indicators

### Social Studies

- Humans are the only animals to build vast civilizations, and geography provided or denied the resources that allowed some groups of former hunter-gatherers to become farmers and herders and eventually develop some of the world's first civilizations.
- Students will explore the various engineering, technological, scientific, and mathematical innovations of such civilizations tracing cross-cultural patterns in order to develop a more informed and eclectic worldview — enhancing their own cultural competency.
- A goal is for students to realize that humans of a given time and place created similar structures and/or inherited ideas to establish a common pattern that was dictated by geography.



## SCIENCE Learning outcomes are from the Next Generation Science Standards

### Energy

- Use evidence to construct an explanation relating the speed of an object to the energy of that object.
- Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.
- Ask questions and predict outcomes about the changes in energy that occur when objects collide.
- Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.
- Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.

### Reproduction

- Organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.
- Reproduction is essential to the continued existence of organisms.
- The traits of organisms can be influenced by their environments.
- Plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.
- Puberty is the process of physical changes through which a child matures into an adult body capable of reproduction.



## TECHNOLOGY

<h3>Coding</h3> <ul style="list-style-type: none"><li>Coding with Chromebook (Review Code.org)</li></ul>	<h3>G-Suite</h3> <ul style="list-style-type: none"><li>Introduction to G-Suite: Google Sites, Form &amp; Maps</li></ul>
<h3>Digital Citizens</h3> <ul style="list-style-type: none"><li>Continue Internet Awesome</li></ul>	<h3>Computer Science</h3> <ul style="list-style-type: none"><li>Review of Toddle PYP platform: Journal &amp; Classroom</li><li>Review of Padlet, Typing Club</li></ul>
<h3>Robotics</h3> <ul style="list-style-type: none"><li>Introduction to "Sphero"</li></ul>	



## ATELIER: ARTE

"For students to explore and construct a sense of self and develop an understanding of the world around them." IB PYP

<p>Creating</p> <ul style="list-style-type: none"><li>• Communicate distinctive forms of meaning</li><li>• Develop technical skills</li><li>• Take creative risks</li><li>• Solve problems</li><li>• Visualize consequences</li></ul>	<p>Creative exploration through</p> <ul style="list-style-type: none"><li>• Imagination</li><li>• Experiences and knowledge of materials and processes</li><li>• Making connections</li><li>• Development of personal artistic journey</li></ul>
<p>Responding</p> <ul style="list-style-type: none"><li>• Critical analysis</li><li>• Interpretation</li><li>• Evaluation</li><li>• Reflection</li><li>• Communication</li></ul>	<p>Understanding of</p> <ul style="list-style-type: none"><li>• Concepts</li><li>• Methods</li><li>• Elements</li><li>• Context</li><li>• Perspectives</li></ul>



## ATELIER: ENVIRONMENTAL STUDIES

### Stewardship

- Care and respect for living things & their habitat in the garden
- Share limited garden resources
- Understand kinds of waste that are biodegradable

### Gardening

- Nature observation skills
- Growing and harvesting food
- Sifting and applying compost
- Handling and studying live decomposer species

### Ecoliteracy

- Understand the variety of ways humans use plants
- Understand the variety of ways humans rely on plants
- Understand the process of decomposition and composting in the garden
- Understand how other species use natural materials



## ATELIER: MUSIC

<p>Performance</p> <ul style="list-style-type: none"><li>• In-school performance</li><li>• Goal of larger school-community performance in Spring</li></ul>	<p>Independent practice</p> <ul style="list-style-type: none"><li>• Practice at home 3-4 times per week</li></ul>
<p>Percussion Instruments</p> <ul style="list-style-type: none"><li>• Intro to percussion technique on various instruments</li><li>• Basic rhythms (notes and rests)</li><li>• Intro to music on the Treble Staff</li><li>• Understanding roles and responsibilities</li></ul>	<p>Vocal Music</p> <ul style="list-style-type: none"><li>• Varied styles</li><li>• Increased range</li><li>• Solo vs. Chorus</li><li>• Different Languages/Dialects</li></ul>
<p>Music Appreciation</p> <ul style="list-style-type: none"><li>• Exploration of composers' use of instruments</li><li>• Visiting Artists / Zoom</li></ul>	<p>Analysis</p> <ul style="list-style-type: none"><li>• Identifying different components/functions</li></ul>



## PHYSICAL EDUCATION (PE)

### Concepts, principles, and strategies

- Collaboration
- Organized play
- Game design
- Athletic skill building and investigation,
- Mindfulness
- Self-awareness

### Motor skills and movement patterns

- Movement Concepts
- Body Management
- Locomotor Movement
- Manipulative Skills
- Rhythmic Skills
- Fitness Concepts
- Aerobic Capacity



## SOCIAL EMOTIONAL LEARNING (SEL)

Guided by the Collaborative for Academic, Social, and Emotional Learning (CASEL) Competencies

<h3>Self-Awareness</h3> <ul style="list-style-type: none"><li>• Identifying one's emotions</li><li>• Integrating personal and social identities</li><li>• Experiencing self-efficacy</li></ul>	<h3>Self-Management</h3> <ul style="list-style-type: none"><li>• Managing one's emotions</li><li>• Setting personal and collective goals</li></ul>
<h3>Social Awareness</h3> <ul style="list-style-type: none"><li>• Taking others' perspectives</li><li>• Understanding and expressing gratitude</li></ul>	<h3>Relationships</h3> <ul style="list-style-type: none"><li>• Communicating effectively</li><li>• Demonstrating cultural competency</li></ul>
<h3>Responsible Decision Making</h3> <ul style="list-style-type: none"><li>• Demonstrating curiosity and open-mindedness</li><li>• Recognizing how critical thinking skills are useful both inside &amp; outside of school</li></ul>	



*“Our task, regarding creativity, is to help children climb their own mountains, as high as possible...”*

Loris Malaguzzi