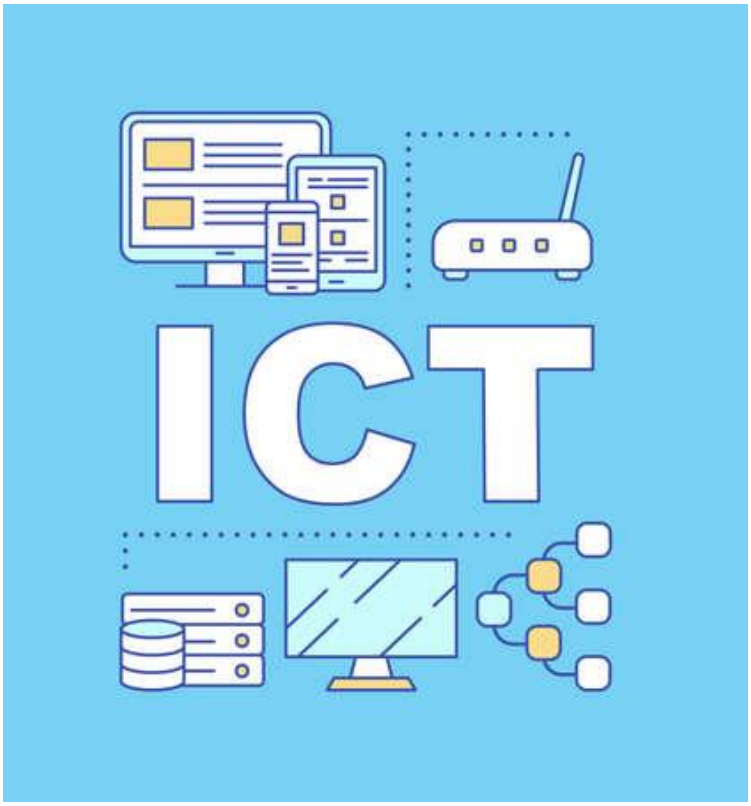
Europäische Schule RheinMain
The European School

ICT Policy

European School RheinMain - Primary School



EN – June 2024: Version 4

Introduction

The importance of ICT cannot be disregarded in the modern World Indeed, the development of technology means that the subject is constantly changing, with the cost of devices and equipment becoming even more accessible for schools. Since 2018, ESRM has had ICT as a part of the curriculum for grades P2-P5. Since 2020, it has been a big part of the European Hours rotation in the topic of robotics (P1-P5). ICT is also taught by teachers who are experts in the subject, with each class P2-P5 receiving ICT for about 45 – 60 minutes per week.

The development of ICT is one that is fast paced, and this document will be reviewed in line with new technology and development of the curriculum via further advances in this field

Timetable and Time allocation

ICT has no planned timetable time as per the regulations for the organsiation of studies. However, with a slightly longer week than a tradition European School, the organization of ICT can be planned. There is no official syllabus from the Office of the Secretary General, with document 2000-D-218 being one of the last documents to cover the teaching and learning of ICT in both the Secondary and Primary School. A locally developed curriculum can be seen in this document to show the areas that are taught to the children at ESRM. ICT is taught in years P2-P5 for 1 hour per week. In PP and P1, ICT skills are taught in the homeroom class. Coding is a part of the European Hours rotation for grades P1-P5.

Hardware and Computer Suite Space

As of May 2024, the Primary School has the following space designated to ICT:

1 x traditional ICT Suite with Windows Access
1 x coding room suite with Apple Mac Access
1 x open ICT suite for informal use with Windows Access

In addition, the Primary School has the following available:
4 x tablet wagons with Android access
1 x Ipad wagon with Apple access

2 x laptop trollies with Windows access
4x tablets with Android access in all classes P1-P5
Every homeroom PP-P5 with a document camera
Every homeroom PP-P5 with an Interactive TV
School Wide WiFi

It is planned for September 2024 to have new laptops to support the teaching and development of the digital portfolio, taking us to three laptop trollies (windows) for the start of the 24-25 school year. Additional tablets will be purchased per class, starting with P5 for school year 24-25.

Digital Consequences

The following is taken from the Behaviour Policy of the Primary School:

ESRM is very lucky to have a growing digital program for all children from PP-P5. From P3, MSTeams is especially used frequently for homework and projects. ICT lessons as well as MOVE sessions look at the safe use of technology, and we ask that parents are part of these discussions.

When it is found that children misuse the technology in the school i.e

- Inappropriate messaging on MSTeams.
- Using another child's password.
- Trying to access non-school related material on the internet.

Then the access to all ICT apps will be suspended for one week. This will mean children cannot effectively use the ICT programs as provided by the school. The parents will also be informed by the Head of Primary. If there is a further misuse, then a parent talk with the Head of Primary will take place to discuss further consequences. Trust with technology and technology usage is pushed in the School, however consequences need to reflect when trust is broken.

It must be noted that the school will not get involved with unkind/ bullying behaviour when it involves messaging or use of WhatsApp, Instagram, Tik Tok or other such apps, as these apps have age limits above that of Primary aged students. If students use these applications, it is on the sole responsibility of the legal guardian, including when there is improper usage.

The following information about WhatsApp should be referenced from the WhatsApp guidelines:

'You must be at least 13 years old (or such greater age required in your country) to register for and use WhatsApp'

https://faq.whatsapp.com/695318248185629?locale=en_US&cms_id=695318248185629&draft=false ***– Stand June 2024***

The age limit has changed from 16 years old to 13 years old in February 2024, however with the age of the students in our oldest group being under 13, it is expected that no students has WhatsApp, and any use is not the responsibility of the school.

General Objectives

The European Schools have the two objectives of providing formal education and of encouraging pupils' personal development in a wider social and cultural context. Formal education involves the acquisition of competences – knowledge, skills and attitudes across a range of domains. Personal development takes place in a variety of spiritual, moral, social and cultural contexts. It involves an awareness of appropriate behaviour, an understanding of the environment in which pupils live, and a development of their individual identity.

These two objectives are nurtured in the context of an enhanced awareness of the richness of European culture. Awareness and experience of a shared European life should lead pupils towards a greater respect for the traditions of each individual country and region in Europe, while developing and preserving their own national identities.

The pupils of the European Schools are future citizens of Europe and the world. As such, they need a range of competences if they are to meet the challenges of a rapidly changing world. In 2006 the European Council and European Parliament adopted a European Framework for Key Competences for Lifelong Learning. It identifies eight key competences which all individuals need for personal fulfilment and development, for active citizenship, for social inclusion and for employment:

1. Communication in the mother tongue

2. Communication in foreign languages

3. Mathematical competence and basic competences in science and technology

4. Digital competence

5. Learning to learn

6. Social and civic competences

7. Sense of initiative and entrepreneurship

8. Cultural awareness and expression

The European Schools' syllabuses seek to develop all of these key competences in the pupils.

Didactic Principles

In the dynamic landscape of primary education, the integration of Information and Communication Technology (ICT) has become a cornerstone for preparing students to navigate the increasingly digital world. ICT education in primary schools goes beyond the conventional realms of traditional subjects, offering a unique opportunity to equip students with the skills and competencies crucial for the 21st century. This involves not only mastering the technical aspects of technology but also fostering a holistic understanding that aligns with the 8 key competencies outlined by European schools.

General Information about ICT at ESRM

There are fundamental principles that guide effective teaching of ICT.

Above all, hands-on learning is crucial. This means students should actively engage with technology through practical exercises and projects. This way, they not only understand the theory but also gain practical skills.

Digital literacy is equally important. Students need to develop basic digital skills, like using computers, managing files, and practicing safe behaviour online. These skills form the foundation for more advanced technological learning.

Critical thinking and problem-solving are emphasized. Students are encouraged to use technology to think critically, solve problems creatively, and express themselves innovatively. The goal is to create an environment where exploration and experimentation are actively encouraged.

Integrating ICT into the broader curriculum enriches educational experiences. By incorporating technology into various subjects, students see its practical application in different areas of study, fostering a holistic understanding.

Adaptability and innovation are valued virtues. Students are urged to embrace new technologies with a mindset of continuous learning and innovation, recognizing that technology is always evolving.

Collaborative learning plays a significant role. Group projects that leverage technology help students develop teamwork and interpersonal skills. Working together towards shared goals fosters a sense of camaraderie and achievement.

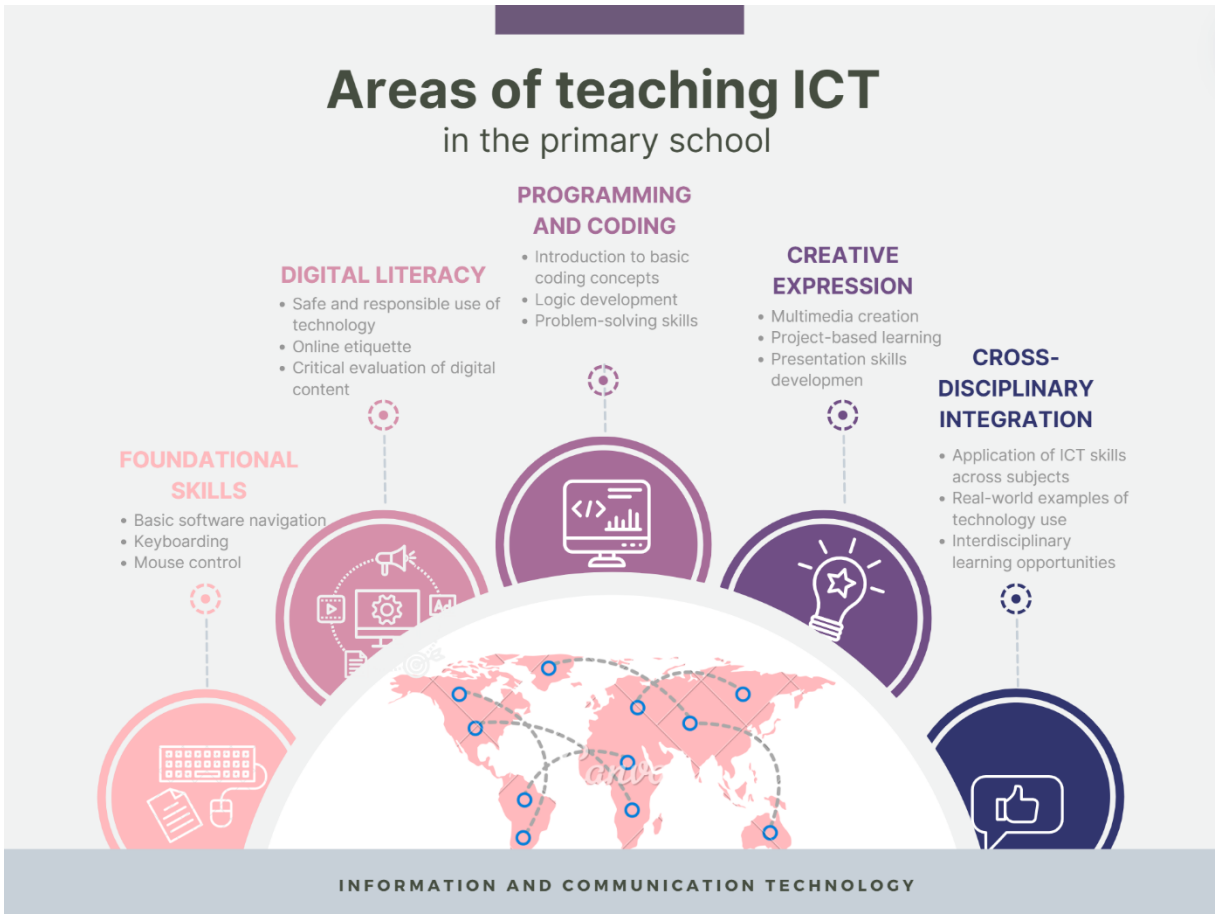
Ethical considerations, particularly digital citizenship, are woven throughout the curriculum. Students are taught responsible and ethical use of technology, covering topics such as online safety, privacy, and adherence to copyright regulations.

Differentiation in instruction is paramount. Tailored approaches and resources are provided to meet the unique needs of each student, ensuring a comprehensive and inclusive educational experience.

Assessment methodologies are varied to allow a nuanced evaluation of students' ICT competencies. Constructive feedback mechanisms are employed to enable reflection and refinement of skills.

Recognizing the dynamic nature of technology, there is an ethos of lifelong learning. The goal is to equip students with the skills to navigate evolving technological landscapes throughout their lives. This underscores the enduring relevance of technological fluency in an ever-changing world.

Communication Information Technology



Foundational skills in the context of teaching ICT in primary schools lay the groundwork for students to navigate and interact with digital tools effectively. Keyboarding, one of these fundamental skills, involves teaching students how to use a keyboard efficiently, fostering familiarity with key placement and touch-typing techniques. Mouse control, another crucial aspect, focuses on developing precision and coordination in handling a computer mouse, essential for graphical interface interaction. Additionally, basic software navigation introduces students to the essentials of operating systems and common software applications. This includes understanding menu structures, file management, and executing commands. Emphasis is placed on creating a comfortable and intuitive relationship between the young learner and the digital environment. These foundational skills are akin to building blocks, providing students with the confidence and competence needed to engage with more advanced ICT concepts and activities in later stages of their education.

Digital literacy is a comprehensive skill set encompassing various facets of information and communication technology (ICT) that empower students to navigate the digital landscape responsibly and effectively. At its core, digital literacy involves teaching students how to use technology in a safe and secure manner. This includes understanding the importance of protecting personal information online, recognizing and avoiding online threats such as phishing, and practicing responsible digital citizenship.

Beyond the basics of online safety, digital literacy also involves cultivating critical thinking skills. Students are taught to critically evaluate digital content, discerning between reliable sources and misinformation. They learn to question the credibility of online information, consider different perspectives, and make informed decisions. This critical evaluation extends to understanding the implications of their online actions, emphasizing the concept of a digital footprint and the potential long-term impact of their online presence.

Digital literacy also addresses the etiquettes and norms of online communication. Students are guided on how to engage respectfully in digital spaces, fostering positive online interactions. This includes teaching them proper email etiquette, responsible social media use, and understanding the permanence of digital communication.

Moreover, as technology continues to evolve, digital literacy involves staying abreast of the latest developments. Students are encouraged to adapt to new digital tools, platforms, and technologies, promoting a mindset of continuous learning in the ever-changing digital landscape.

In essence, a robust digital literacy curriculum equips students not only with the technical skills to navigate digital tools but also with the critical thinking, ethical considerations, and adaptability necessary to thrive in an interconnected and rapidly evolving digital world.

AI, is a growing part within education, and Annex 1 references the initial stages of a policy for AI within year grades PP-P5.

Learning Objectives

Foundational Skills Development:

Master keyboarding techniques, including touch typing, to enhance efficiency and familiarity with key placement.

Develop precision and coordination in mouse control for effective graphical interface interaction.

Basic Software Proficiency:

Understand essential operating system functions, including menu navigation and executing commands.

Gain proficiency in file management, encompassing saving, retrieving, and organizing files efficiently.

Introduction to Coding:

Introduce basic coding concepts through age-appropriate platforms like Scratch or Code.org.

Familiarize students with sequences, loops, and basic algorithms to solve problems in various contexts.

Digital Literacy Enhancement:

Foster responsible and secure technology use, emphasizing the protection of personal information and awareness of online threats such as phishing.

Cultivate critical thinking skills to evaluate digital content, distinguishing between reliable sources and misinformation.

Instill an understanding of the consequences of online actions, including the concept of a digital footprint and its long-term impact.

Teach online communication etiquettes and norms, promoting respectful engagement and emphasizing the permanence of digital communication.

Promoting Adaptability and Lifelong Learning:

Encourage adaptation to new digital tools, platforms, and technologies, fostering a mindset of continuous learning in the rapidly evolving digital landscape.

Progression of Learning

Year grade	Content	Material	Applications
PP	Basic programming “gamification”	Interactive TVs Programmable educational robot	Interactive learning platforms Screen-free programming
P1	Basic programming “gamification” Understanding the importance of technology	Interactive TVs Tablets Programmable educational robot	Pre-installed programmes Interactive learning platforms
P2	How to use the ICT room Mouse training Typing skills MS Word Parts of a computer (screen, mouse, keyboard, machine) Programming for Starters	Interactive TVs Tablets Programmable educational robot PCs	Interactive learning platforms Block based programming MS Paint Internet-ABC/ Be Internet awesome MS Word

P3	Library Catalogue Introduction to MS Teams Saving/using Images MS PowerPoint Internet Safety Internet Search (Blinde-kuh, Seiten-stark, fragfinn) Programming	Interactive TVs Programmable educational robot PCs	Block based programming Interactive learning platforms Brockhaus & Britannica School Internet-ABC/ Be Internet awesome CAD Software Online typing platforms
P4	Programming MS Excel iServ MS Teams Internet Safety Surfschein	Interactive TVs Programmable educational robot PCs	Block based programming Interactive learning platforms Folder trees Internet-ABC/ Be Internet awesome CAD software Online typing platforms
P5	Programming iServ MS Teams Internet Safety Photo Editing Office Project	Interactive TVs Programmable educational robot PCs	Email Photo editing CAD software Online typing platforms Interactive learning platforms Internet-ABC/ Be Internet awesome Block based programming

Annex 1 – AI policy in the Primary School

The following annex is a working first document of the AI policy of the Primary School and will be reviewed ongoing in the school year 24-25. Although not a huge area of ICT in the Primary School for the students, the area is a growing influence, especially in areas of independent learning and homework.

Introduction

The integration of Artificial Intelligence including chatbots (AI) into educational environments presents significant opportunities to enhance learning experiences and operational efficiency. However, it is imperative to approach this integration with a careful consideration of ethical standards, especially regarding the privacy and security of our students. The primary goal of implementing AI in our school is to support and augment educational outcomes, ensuring that technology acts as a tool to enrich classroom learning and not as a replacement for traditional teaching methods.

Our commitment to safeguarding student data and privacy is paramount. As AI technologies become increasingly embedded in educational tools, the potential for misuse of these technologies, particularly concerning the handling of sensitive student information, grows. Therefore, our AI policy is designed to set clear guidelines and limitations to prevent any such misuse and to cultivate a secure and responsible use of AI within our school.

This policy outlines the responsibilities of all stakeholders—including students, teachers, and administrative staff—in using AI technologies. It specifies permissible uses of AI, conditions under which students can access these technologies, and the strict prohibitions on the entry of personal student data into any AI system.

In this policy document, we will address the scope of AI technologies covered, our objectives for using such technologies, rules governing AI access and usage, actions prohibited in relation to AI, and the measures in place to protect data security and privacy. We also detail the procedures for monitoring compliance and the steps we will take to ensure the ongoing effectiveness of this policy through regular reviews and updates.

Through this introduction and the subsequent sections, we aim to clarify our approach to AI usage in the school setting, ensuring that it serves to support our educational mission while protecting the welfare of our students. This policy is not only a framework for the ethical use of AI but also an affirmation of our commitment to maintaining a safe, respectful, and forward-thinking learning environment.

Scope of Policy

This policy is applicable to all stakeholders within the primary school community, including students, teachers, administrative staff, and any third parties engaged in educational activities. It covers the use of Artificial Intelligence (AI) technologies in various forms, whether they are integrated into educational software, used in school operations, or part of interactive learning tools.

Applicability

- **Students**: The policy addresses the conditions under which students can interact with AI tools. This includes any AI-enabled devices or software used within the school premises or through school-provided digital platforms.
- **Teachers and Staff**: For teachers and staff, this policy governs the methods of incorporating AI into teaching practices and administrative tasks. It also outlines the responsibilities of staff members in managing and overseeing the use of AI technologies in accordance with ethical standards.
- **Third Parties**: Any external vendors or partners who provide AI-based tools or services must comply with the terms of this policy. This includes adherence to data protection stipulations and restrictions on the use of student information.

Types of AI Technologies Covered

- **Educational Software**: This includes any AI-driven applications designed to support learning through adaptive learning technologies, tutoring systems, or personalized learning experiences.
- **Operational Tools**: AI technologies used for school management, including scheduling systems, data analysis tools, and automation software that assist in administrative tasks.
- **Interactive Learning Tools**: Devices or software that interact directly with students, such as educational robots, AI-based educational games, and virtual reality environments that utilize AI for immersive learning experiences.

The scope of this policy is designed to ensure a comprehensive management framework that addresses all potential interactions with AI technologies within the school environment. By defining the applicable stakeholders and types of technologies, the policy aims to create a clear and structured approach to the ethical use of AI, ensuring that all activities are aligned with the school's educational goals and compliance requirements. This approach not only protects the interests of students but also supports teachers and staff in effectively utilizing AI to enhance educational outcomes.

Objectives

The primary objectives of integrating Artificial Intelligence (AI) into our primary school are to enhance the educational experiences of students, ensure the protection of student privacy and data security, and uphold the ethical use of AI within our educational setting. This section details the specific goals we aim to achieve through the implementation of our AI policy.

Enhance Learning Experiences

- **Personalized Learning**: Utilize AI to tailor educational content to the learning styles and paces of individual students, allowing for more personalized and effective learning experiences.
- **Efficiency and Engagement**: Employ AI tools to streamline educational processes and increase efficiency in learning activities, which can free up time for more interactive and engaging learning experiences.
- **Support for Diverse Learning Needs**: Leverage AI to provide additional support for students with diverse educational needs, including those requiring special education services, by adapting materials and methodologies to better suit their learning requirements.

Protect Student Privacy and Data Security

- **Safeguard Personal Information**: Ensure that all AI technologies implemented in the school are compliant with data protection laws and the school's privacy policies. This includes strict controls on the collection, storage, and processing of any personal data.

Ensure Ethical Use of AI

- **Ethical Standards and Practices**: Establish and enforce ethical standards for the use of AI, focusing on fairness, non-discrimination, and the welfare of students. This includes ensuring that AI tools do not reinforce biases or inequalities in the educational environment.
- **Accountability Measures**: Set clear accountability guidelines for the deployment and operation of AI tools within the school, including who is responsible for overseeing these technologies and how ethical considerations are addressed.
- **Ongoing Monitoring and Evaluation**: Continuously monitor the impact of AI on the school's educational environment and student welfare, adjusting policies and practices as necessary to align with ethical standards and educational goals.

The objectives outlined in this policy framework are designed to direct the implementation and management of AI technologies in a manner that enriches the educational experience for all students while safeguarding their rights and security. Through careful planning and execution, we aim to harness the benefits of AI to support our educational mission and ensure that our school remains a safe, inclusive, and forward-thinking place for learning.

AI Access and Usage

In order to ensure a controlled and beneficial integration of Artificial Intelligence (AI) technologies into our primary school environment, we have established specific guidelines governing AI access and usage. These guidelines are designed to regulate how students engage with AI tools and under what conditions they are granted access. The aim is to balance the educational benefits of AI with the need to protect our students and maintain an ethical and secure learning environment.

Student Access

- **Regulated Access**: Student access to AI technologies will be strictly regulated. AI tools will only be available via school-controlled devices and networks to ensure safety and appropriateness of content.
- **Permission-based Use**: Students will be allowed to use AI tools only under specific circumstances that require teacher approval. Permission to use AI

technologies will be granted based on the educational value and relevance to the current learning objectives.

- **Supervised Interaction**: All student interactions with AI technologies will be supervised by a teacher or designated staff member. This is to ensure that the use of AI is aligned with instructional goals and that the technology is used responsibly.

Usage Protocols

- **Educational Purpose Only**: AI tools are to be used solely for educational purposes. Teachers will introduce AI applications as a means to enhance teaching and learning within the framework of the curriculum.
- **Guided Activities**: Teachers will guide the use of AI technologies by setting up activities that are structured and have clear educational outcomes. This approach ensures that AI is used as an effective educational tool.
- **Integration into Learning Environments**: AI technologies should be integrated into the learning environment in ways that enhance educational interactions and not replace human contact or traditional learning methods. The role of AI is to support and enrich the learning experience, not to diminish the teacher-student relationship.

Teacher and Staff Responsibilities

- **Training and Competency**: Teachers and staff will receive ongoing training on the ethical use of AI and how to integrate AI tools into their teaching practice safely and effectively.
- **Monitoring Use**: Teachers are responsible for monitoring the use of AI technologies in the classroom to ensure compliance with this policy and to address any issues or concerns that may arise during its use.
- **Evaluating Effectiveness**: Regular evaluations will be conducted to assess the effectiveness of AI tools in achieving educational objectives and to ensure that they are used in accordance with ethical guidelines.

The guidelines laid out in this section are intended to foster a responsible, effective, and safe use of AI in our primary school. By adhering to these protocols, we aim to leverage AI technologies to enhance educational outcomes while maintaining a secure and ethical learning environment for our students.