National Curriculum of Pakistan
2024

Non-Credit Curriculum

Information and Communication Technology

Grades 1-5

NATIONAL CURRICULUM COUNCIL
MINISTRY OF FEDERAL EDUCATION AND
PROFESSIONAL TRAINING, ISLAMABAD
GOVERNMENT OF PAKISTAN

بسم الله الرحمن الرحيم

National Curriculum of Pakistan
2024

Non-Credit Curriculum

Information and Communication Technology

Grades 1-5

NATIONAL CURRICULUM COUNCIL
MINISTRY OF FEDERAL EDUCATION AND
PROFESSIONAL TRAINING, ISLAMABAD
GOVERNMENT OF PAKISTAN

PREFACE

It goes without saying that Information Communication Technology (ICT) has become a fundamental component of the education system across the globe. At the primary level, the introduction of ICT in the curriculum is not just about teaching children how to use technology, but about empowering them with the skills and understanding necessary to navigate, contribute to, and innovate in a technology-driven era.

The primary level ICT curriculum is designed with a child-centric approach, recognizing the diverse needs, interests, and abilities of young learners. It aims to foster a sense of curiosity and enthusiasm for learning through interactive, engaging, and age-appropriate content. I believe that this curriculum will enable students to think critically and solve their problems with local resources to move forward. The vision behind developing ICT curriculum was to enable young scholars to for successful interaction with ever-changing ICT requirements in day-to-day life. The main objectives include;

i. Introducing students to the fundamental concepts of computers and digital devices, including their components, functions, and safe usage.

ii. Educating students on the responsible and ethical use of technology, including internet safety, online etiquette, and understanding digital footprints.

iii. Teaching basic skills in using software applications such as word processors, spreadsheets, and presentation tools, which are crucial for academic tasks and projects.

Introduction to Coding and Programming: Providing a gentle introduction to coding and logical thinking through age-appropriate programming languages and activities.

Creative Expression: Encouraging the use of digital tools for creative projects, including digital art, storytelling, and multimedia presentations, to foster self-expression and innovation.

Collaborative Learning: Promoting teamwork and collaboration through group projects and activities that utilize ICT tools, helping students to develop communication and social skills.

This curriculum also emphasizes the role of teachers as facilitators and guides in the learning process. Professional development and ongoing support for educators are crucial components, ensuring they are well-equipped to integrate ICT into their teaching practices effectively.

By introducing ICT at the primary level, we aim to create a solid foundation for lifelong learning and adaptability in a rapidly evolving digital landscape. This curriculum is designed to be flexible and inclusive, accommodating the varied learning paces and styles of students, and preparing them for future academic endeavors and the demands of the 21st-century workplace.

We are excited to embark on this journey of digital education with our young learners, nurturing their potential and helping them become confident, competent, and responsible users of technology.

Mohyuddin Ahmad Wani

Secretary

Ministry of Federal Education and Professional Training

Islamabad

ACKNOWLEDGMENT

National Curriculum Council appreciates and acknowledges the efforts of the following educational leaders and practitioners who dedicatedly developed this curriculum.

1. Prof. Rozina Faheem, Principal, FGCHMS, Islamabad
2. Prof. Sadaf Zehra, Associate Professor, IMCG (PG), F-7/2, Islamabad
3. Syeda Aliya Wajahat, SST, IMCG, 1-9/1, Islamabad
4. Ms. Asmah Habib Abbasi, SET, IMSG (1-X), NHC, Islamabad

This initiative will bridge the existing gap in ICT education, which begins in Grade VI with the name Computer Science. By introducing ICT as a non-credit subject, NCC aims to foster a generation of digitally adept individuals who can navigate the complexities of the modern world with confidence.

A special thanks also go to the following experts who provided online inputs from the Federal Directorate of Education (FDE):

1. Mr. Muhammad Zubair Akhtar Hussain, CEO, GoogleBiz
2. Ms. Samra Kalsoom Headmistress Islamabad Model School (I-V) G-10/3 Islamabad
3. Ms. Nosheen Akhtar, Headmistress, IMSG DHOKE PARACHA
4. Ms. Salma, Principal, Pakistan International Model School, Sanat Pura, Faisalabad.
5. Ms. Najeeba Iqbal Computer Teacher Islamabad Model School (I-V) G-8/1 Islamabad

I hope that these skills will empower young learners to shape their future, connect with the world, and contribute positively to society.

Dr Shafqat Ali Janjua

Director

National Curriculum Council (NCC)

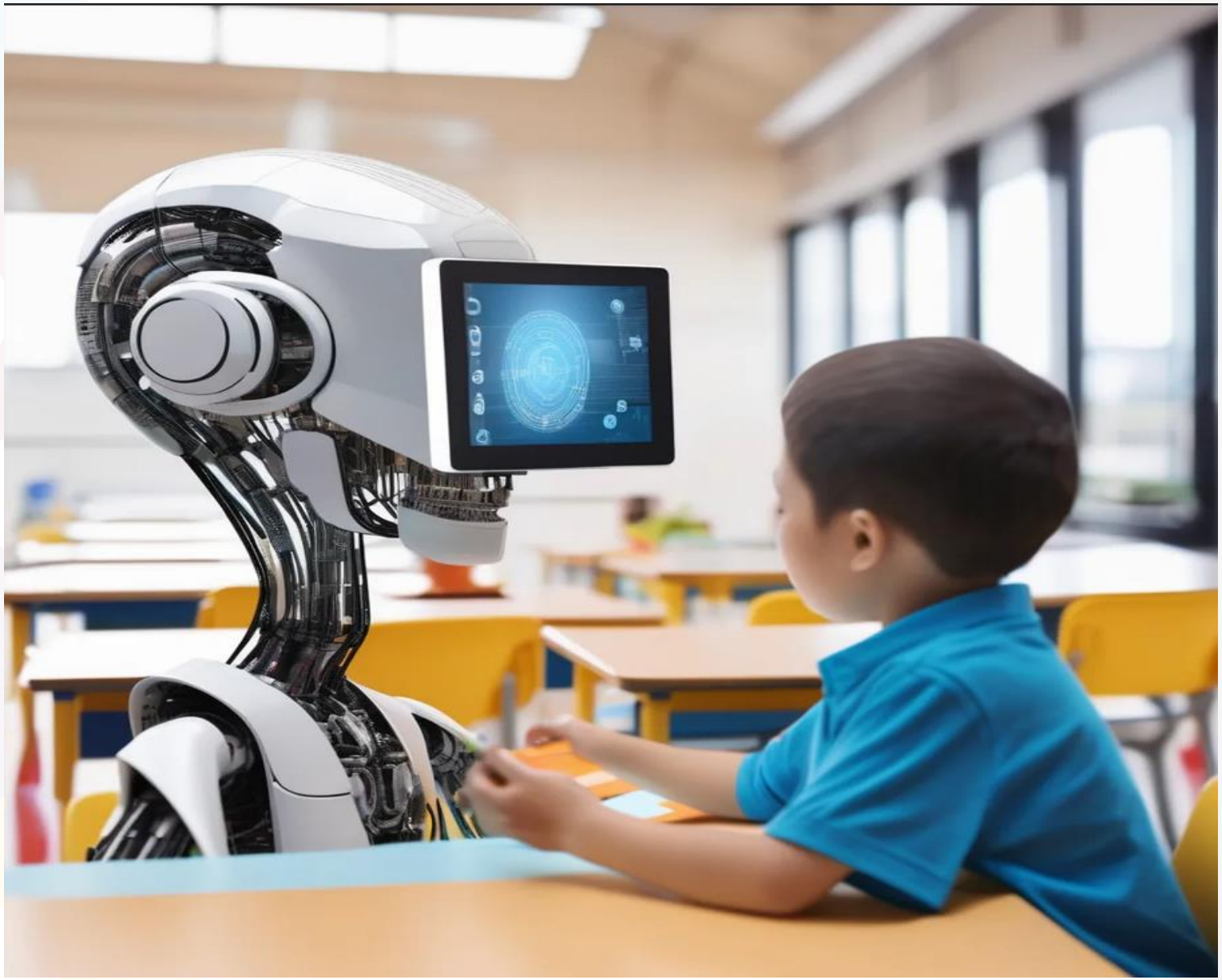
Islamabad

National Curriculum of Pakistan 2024
Co-Curricular Curriculum
Information and Communication Technology
Grade 1 – V

Domain/ Content Area	Beginner's Level: Grade 1-3	Advanced Level: Grade 4-5
Domain A: ICT Fundamentals	A1: Recognize and name basic ICT devices (e.g., input, output, processing, storage, and communication devices) and their functions. A2: Learn how to turn on and off a computer, open and close programs, and navigate simple software interfaces, such as educational games and learning applications.	A3: Use of basic computer peripheral devices like scanner, printer, camera, USB, etc. A4: Demonstrate basic troubleshooting skills for common ICT devices.

Domain/ Content Area	Beginner's Level: Grade 1-3	Advanced Level: Grade 4-5
Domain B: Digital Skills	B1: Begin developing typing skills using age-appropriate typing programs to familiarize students with the keyboard layout and basic typing techniques. Introduce proper finger placement and basic typing exercises. B2: Use common software applications, such as word processors, drawing tools, and educational games. This includes understanding more complex functions like saving and retrieving files. B3: Use search engines and other online resources to find information for class projects. Emphasize the importance of evaluating the credibility of sources and citing information correctly. Encourage them to use search engines effectively and responsibly. B4: Use of multimedia tools to create digital content. Students can learn to combine text, images, and sound to create simple presentations or digital stories, fostering creativity and communication skills.	B5: Improve typing speed and accuracy, with a focus on proper finger placement and touch-typing techniques. Regular practice using typing programs can help solidify these skills. B6: Use of spreadsheet that includes understanding of basic functions and tools. B7: Understand basic terminologies like data, information, and data analysis concepts, such as organizing data in spreadsheets, creating graphs and charts. Interpret and analyze data using simple data collection projects. B8: Use of collaborative digital projects which include group presentations, digital storytelling, or simple research projects that use online resources and presentation software. B9: Conduct advanced online research, critically evaluate the credibility of sources, and properly cite information. B10: Create more sophisticated multimedia projects including animations/ simple videos that integrate text, images, audio, and effects.

Domain/ Content Area	Beginner's Level: Grade 1-3	Advanced Level: Grade 4-5
Domain C: Problem Solving and Programming Fundamentals	C1: Identify, define, and analyze a problem. C2: Solve simple daily life problems. C3: Use visual programming tools like Scratch/ Code.org/ Blockly or any other to solve basic programming logic, sequencing, and problem-solving in an interactive and playful manner. C4: Create a digital picture or story by exploring drawing programs or multimedia tools. C5: Create simple programs that incorporate basic loops, conditionals, and events. Perform problem-solving and logical thinking through coding activities.	C6: Solve complex mathematical problems. C7: Create projects that incorporate variables, basic algorithms, and debugging. Perform critical thinking and problem-solving through hands-on coding activities and games. C8: Use of text-based coding environments such as Python to create simple programs emphasizing problem-solving and logical thinking.



Domain/ Content Area	Beginner's Level: Grade 1-3	Advanced Level: Grade 4-5
Domain D: AI / IoT / Blockchain	D1: Understand basic concepts, simple examples and uses of Artificial Intelligence (AI) in everyday life. D2: Understand use of voice assistants, image recognition, chatbots etc. D3: Understand machine learning, IoT, cloud computing, blockchain.	D4: Understand types of AI (narrow AI, general AI etc.). D5: Understand relationship between AI and Robotics. D6: Use of AI tools to solve simple problems or puzzles. D7: Identify benefits and limitations of AI.

Domain/ Content Area	Beginner's Level: Grade 1-3	Advanced Level: Grade 4-5
Domain E: Impacts of Computing	E1: Understand basic concepts of e-safety, such as not sharing personal information online, recognizing trusted websites, and asking for help from a trusted adult when needed. E2: Understand principles of safe and responsible internet use. Recognize appropriate online behavior and concept of a digital footprint.	E3: Recognize and avoid online scams, understand privacy settings (password, firewall etc.) and concepts of cyberbullying. E4: Understand digital citizenship, online ethical behavior, use of copyright. E5: Identify and avoid online risks and practice safe online behavior. E6: Encourage students to think critically about their digital footprint and online interactions.

TO BE PUBLISHED IN THE NEXT ISSUE
OF THE GAZETTE OF PAKISTAN PART-III

Government of Pakistan
National Curriculum Council
Ministry of Federal Education & Professional Training
****

Islamabad, 18th July, 2024

NOTIFICATION

F.No.1-3(2024) IT-AI/NCC: In exercise of the powers conferred under the Federal Supervision of Curricula, Textbooks and Maintenance of Standards of Education Act, 1976 Section 3 (2) (a) the Competent Authority i.e. Secretary, Ministry of Federal Education and Professional Training (MoFE&PT) has been pleased to approve Curriculum of Information Communication Technology for grades I-V, for implementation in all Public and Private Educational Institutions located in Islamabad Capital Territory (ICT) and the institutions under the Federal Government across the country w.e.f. the academic year 2024-2025.

(Imran Ahmad Khan)
Assistant Education Advisor
051-9265573

The Manager,
Printing Corporation of Pakistan Press,
University Road, Karachi

Distribution:

1. Director General, Federal Directorate of Education, Islamabad
2. Director General, Federal Government Educational Institutions, Cantt. & Garrisons, Rawalpindi
3. Chairperson, Private Educational Institutions Regulatory Authority, Islamabad
4. Director General, Directorate General of Religious Education, Islamabad
5. Managing Director, National Book Foundation, Islamabad
6. Director General, Army Public Schools & Colleges System, Rawalpindi
7. Director, Naval Education, Islamabad
8. Director, Fazaia Teachers Training Institution, Islamabad

Copy to: -

1. PSO to Federal Minister, M/o FE&PT, Islamabad
2. SPS to Secretary, Ministry of FE&PT, Islamabad
3. SPS to Senior Joint Secretary, M/o FE&PT, Islamabad
4. APS to Joint Educational Advisor, FE&PT, Islamabad
5. APS to Director, NCC Secretariat, Islamabad

Assistant Education Advisor

NATIONAL CURRICULUM COUNCIL
MINISTRY OF FEDERAL EDUCATION AND
PROFESSIONAL TRAINING, ISLAMABAD
GOVERNMENT OF PAKISTAN