Educational Area of Information Science

Information technology

Year 1-2

1 * hour per week, 35 hours per year
(*included in the integrated subject "I explore the world")

Proposed content	
1.	**Data. Information. Actions with information. Object. Object properties. Models. Creating, modifying and using information models.** The concept of information. The world around us and information. Types of information by method of presentation and method of perception (visual, auditory, tactile, olfactory, gustatory). Sources of information by man and machine. Formulation of requests for devices and people. Easy data organization. Selection and organization of data on a certain basis. Storage of data and information on media. Examples of available media. Creating the simplest models (from improvised materials, constructor, etc. and with the help of digital devices). Properties of objects and their models. Create simple geometric models of objects by describing their properties. Change the properties of an object (contour color, background color, object shape).
2.	**Computer programs. Menus and tools. Digital creativity.** Event, sequence of events. Concluding a sequence of steps. Consequences of violation of the plan (algorithm), sequence of events in the immediate environment, ready-made programs, games. Compilation of simple algorithms for the performer. The performer and his command system. Correction of errors in plans and algorithms. Programs and tools for creating simple images, lyrics, music, recording voice messages and songs. Creating drawings using ready-made algorithms Compiling your own graphical algorithms. Graphic editor tools and their settings. Create and edit simple drawings. View and use simple information products (images, texts, sounds, videos, and combinations). Filling tables on devices and without them, simple calculations. Registration of texts. Electronic design. Editing created or finished electronic documents. Presentation of own ideas, opinions, ready or created information products to the audience.
3.	**Digital devices.** People and machines. Intellectual behavior of machines. Digital devices for learning, living, gaming, security, development and information gathering. Capabilities of digital devices, assignment, on / off, overload. Workplace for working with digital devices. Elementary adjustment of the software environment to your own needs. Programs and devices for

	communication on the Internet, in secure online and offline environments. View training videos, animations, charts, search and navigate secure networks and the Internet with digital devices.
4.	**Responsibility and security in the information society.** Rules of own and mutual safety with digital devices. Organization of the workplace and personal mode of work with digital devices. Self-regulation when working with digital devices. Means and methods of storing personal information. PIN codes and passwords. Network security. Dangerous interlocutors and topics. Ethics of communication in networks and in real life, features of digital communication. Content authorship. Programs and tools that facilitate communication with people with special needs.

Compulsory learning outcomes of applicants for education (recording with the State standard of primary education).

Student:

- explains the perception of information by various senses basing on their own observations;
- distinguishes and captures data, analyzes and organizes simple sequences;
- defines objects, their properties and property values with teacher's support; distinguishes between models and their analogues in the real world, creates simple models
- distinguishes between true and false statements obtained from different sources;
- creates an action plan, provides examples of repeating and performing actions on a specific task in daily activities;
- makes a simple plan for accurate and unambiguous instructions for performers, identifies errors in it, evaluates compliance with the expected result;
- completes the whole from the suggested parts, explains how the replacement of individual parts leads to another whole;
- uses ready-made and creates simple information products (text, images, sounds) for receiving, transmitting information or presenting own ideas, results of activity;
- independently and responsibly performs certain tasks; works in a team with others to achieve a common goal;
- uses digital devices at home, at school, at the street and explains their purpose;
- organizes own workplace with the help of adults; recognizes and describes simple problems and failures that occur in the operation of available digital devices, asks for help and support;
- uses digital devices, technology to access information and to communicate;
- complies with the rules of safe work; protects their information space; talks about the problems of adults;
- takes into account the technical capabilities of digital devices for communication inter alia with people with special needs, respects the privacy of messages, tolerates cultural differences, traditions and different opinions;
- notes the authorship of own works; shows respect for the authorship of others.