

## JUNIOR EXPLORERS

Age Range: 6 – 8

### Cycle Overview

The **Junior Explorers** program is a foundational cycle designed to introduce young learners to key concepts in computer science, robotics, artificial intelligence, design, and cybersecurity. In this cycle, instead of focusing on the technical details, they **learn by doing** - exploring robots, computers, smart machines, basic coding, movement directions, basic math operations, and early cyber awareness in a fun, interactive way.

### Skills and Competencies

- **Competency:** Evaluating information and challenges through logical reasoning and analysis to make informed decisions with accuracy and data integrity
- **Future Skills:** Digital Literacy; Innovation; AI Awareness
- **Judgment Skills:** Decision Making; Logical Reasoning; Fact-Checking
- **Technical Skills:** Programming; Robotics; Digital Citizenship; Design

| Levels' Distribution |  |                                  |   |   |
|----------------------|--|----------------------------------|---|---|
| Fields               | Level 1                                      | Level 2                          | Level 3                                     | Level 4                                 |
| Computer Sciences    | ✓ Sequence and Computer Parts                | ✓ Algorithm and Debugging        | ✓ "While" and "Wait for" control statements | ✓ Understand Repeating Actions in Loops |
| Robotics             | ✓ Robot VS Human                             | ✓ How to use a sensor?           |   | ✓ Understand what are sensors           |
| AI                   |  | ✓ What is an Intelligent Device? | ✓ AI in everyday life                       | ✓ What makes an intelligent machine?    |
| Design               | ✓ Dimensions - 2D VS 3D                      | ✓ Geometric Shapes               | ✓ Merge shapes to build models              |   |
| Sciences & Math      | ✓ Speed and direction (forward and backward) | ✓ Basic Math Operations          | ✓ Animal behaviors                          |   |
| Network & Security   | ✓ What is the internet?                      | ✓ Digital Citizenship            | ✓ Fake News and Fact Checking               | ✓ Digital Footprint                     |