NSS.IONIA
THE FUTURE IS NOW

Course Outline

Little Explorer

Age : 2-5, 6-9 years old

Introduction

The Young Coder Adventure Lessons have been developed to engage and motivate children in early making, piquing their interest in learning design, technology and engineering .\nEach lesson provides an initial brief as a starting point. The open ended prompts allow for unlimited answers and enable children to express a wide range of creative solutions as they sketch, build, and test prototypes of the designs they create.\nThe teacher's role in these lessons is to provide children with the tools and necessary freedom to connect with and define a problem, make a solution, and share what they have made. Use your creativity to adapt these activities to suit the needs of your children.

Seq	Lesson	Objective
1	First trip	- Understand the function of action bricks - Understand how to use the different types of bricks - Use action bricks to complete tasks
2	Train Sound	- Understand the function of action bricks - Use action bricks to complete tasks - Define the train's journey (sequencing)
3	Functional Elements	- Become familiar with the functional elements in the set - Identify the movements of the functional elements - Explore the idea that machines are made of moving parts
4	Welcome to STEAM Park	- Become familiar with the set - Build models using the in-box building inspiration cards - Meet the characters in the STEAM Park - Explore the imaginary STEAM Park setting
5	Explore the Café	- Explore the components of the Café+ set - Begin counting as they build a menu item

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6	Pinwheel	- How movement can be described in many ways - How push and pull affect the movement and shape of objects
7	What is it?	- Learn to work together with the team. - Share and take turns independently. - Use imagination and creative thinking. - Notice words that connect or describe in sentences.
8	Who am I?	- Solve problems and adapt to various situations which occurred by oneself appropriately - Communicate appropriately with the group member's while participating in activities, including spoken language, gesture language, or other symbols
9	Draw a story	- Practice meditation - Develop Problem solving skills - Develop Communication skills - Develop Fine Motor
10	O-Shaped Track-Looping	- Understand use of the O-shaped track for repeating sequences - Be able to compare different train track shapes and their uses
11	Ramps	- Observe what happens when they place objects on a ramp - Make predictions - Measure how far objects move - Record data using graphs
12	Birthday Celebrations	- Explore the concept of parts of whole - Count and practice one-to-one correspondence

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13	Spinning Tops	- How movement can be described in many ways - How push and pull affect the movement of objects - Framework structures and how to make them stable - Wheels and axles and how to use these for a specific purpose
14	Can you Copy?	- Notice depth and perspective. - Keep attention and resist distraction. - Develop your own ways of carrying out tasks. - Learn to work together with the team.
15	Scenario	- Express themselves confidently, creatively, and appropriately, such as courage, trial, and error. - Dare to express the courage to express their feelings and needs to others.
16	Water Color	- Develop creativity - Practice meditation - Develop Problem solving skills - Develop Communication skills - Develop Fine Motor
17	Y-Shape Track-Conditional Statements	- Understand that the Y-shaped track provides options - Design and optimize solutions - Be able to compare different train track shapes and their uses
18	Moving on water	- Experiment with the idea of sinking or floating - Learn which sail design works best for the boats in the set - Record data using graphs

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19	Food Patterns	- Sort by shape, size, and color - Practice making patterns - Recognize patterns
20	Seesaw	- How movement can be described in many ways - How levers, pivot point, weight and loads affect balancing - How cause and effect can be explored in mechanical systems