

# **Overview:**



# Table:

| All exercises          |        |                                                                                                                        |             |  |
|------------------------|--------|------------------------------------------------------------------------------------------------------------------------|-------------|--|
| Exercise               | Levels | Concepts                                                                                                               | Blocks Used |  |
| Fun with Basics        | 0/10   | Sequence, Algorithmic Thinking                                                                                         | 0           |  |
| Loopy Loops            | 0/12   | Loops, Debugging                                                                                                       | 0           |  |
| Conditional Crops      | 0/12   | Conditional Statements,<br>Pattern Recognition                                                                         | 0           |  |
| Backyard Functions     | 0/10   | Functions, Variables, Events                                                                                           | 0           |  |
| Dog and the loops      | 0/8    | Loops, Variables, Functions                                                                                            | 0           |  |
| Gardening Conditionals | 0/6    | Functions, Conditional<br>Statements, Sequence,<br>Algorithmic Thinking                                                | 0           |  |
| Swamp conditionals     | 0/4    | Conditional Statements,<br>Loops, Variables, Sequence,<br>Events, Functions,<br>Decomposition, Algorithmic<br>Thinking | 0           |  |
| Baloon pop functions   | 0/8    | Conditional Statements,<br>Loops, Variables, Sequence,<br>Events, Functions,<br>Decomposition, Algorithmic<br>Thinking | 0           |  |

| Loops and castles             | 0/8 | Loops, Variables, Functions                                                                                            | 0 |
|-------------------------------|-----|------------------------------------------------------------------------------------------------------------------------|---|
| Desert conditionals           | 0/4 | Conditional Statements,<br>Loops, Variables, Sequence,<br>Events, Functions,<br>Decomposition, Algorithmic<br>Thinking | 0 |
| Predator bird functions       | 0/7 | Conditional Statements,<br>Loops, Variables, Sequence,<br>Events, Functions,<br>Decomposition, Algorithmic<br>Thinking | 0 |
| Functions on the field        | 0/9 | Conditional Statements,<br>Loops, Variables, Sequence,<br>Events, Functions,<br>Decomposition, Algorithmic<br>Thinking | 0 |
| Fun with Basics               | 0/3 | r                                                                                                                      | 0 |
| Loopy Loops                   | 0/4 | r                                                                                                                      | 0 |
| Conditional Crops             | 0/4 | r                                                                                                                      | 0 |
| Backyard Functions            | 0/6 | r                                                                                                                      | 0 |
| Fun with Basics - Grade 1 & 2 | 0/8 |                                                                                                                        | 0 |
| Loopy Loops - Grade 1/2       | 0/8 |                                                                                                                        | 0 |

## **List of Concepts:**

## **Decomposition**

Breaking down a problem into smaller, more manageable parts.

Computational Thinking Concepts

## **Pattern Recognition**

Identifying similarities or patterns within problems.

Computational Thinking Concepts

#### **Abstraction**

Simplifying complex problems by focusing on essential details and ignoring unnecessary information.

Computational Thinking Concepts

## **Algorithmic Thinking**

Developing step-by-step instructions or rules to solve a problem.

Computational Thinking Concepts

#### Sequence

Understanding and writing instructions in a specific order.

**Programming Concepts** 

#### **Variables**

Introducing the concept of containers for storing information.

**Programming Concepts** 

## Loops

Repeating a set of instructions multiple times.

Programming Concepts

#### **Conditional Statements**

Making decisions in the program based on certain conditions.

Programming Concepts

#### **Events**

Reacting to user inputs or specific occurrences in the program.

**Programming Concepts** 

#### **Functions**

Creating reusable blocks of code to perform specific tasks.

**Programming Concepts** 

## **Data Types**

Introducing the idea of different types of data, such as numbers, text, and Boolean values.

Programming Concepts

## **Input and Output**

Understanding how programs receive information (input) and produce results (output).

**Programming Concepts** 

## **Debugging**

Identifying and fixing errors or mistakes in the code.

Programming Concepts

#### **Comments**

Adding explanations and notes within the code for better understanding.

Programming Concepts

#### **Event Handling**

Responding to events triggered by user actions or other parts of the program.

Programming Concepts

## **Graphics and Animation**

Introducing basic concepts of drawing and creating movement in a program.

Programming Concepts

## Simulation

Creating virtual scenarios to model real-world situations.

Programming Concepts

#### Collaboration

Encouraging teamwork and sharing of code with others.

Programming Concepts

## Iteration

Repeating a set of instructions or a process.

Programming Concepts