

# **Overview:**



# Table:

All exercises			
Exercise	Levels	Concepts	Blocks Used
Fun with Basics	9/10	Sequence, Algorithmic Thinking	101
Loopy Loops	12/12	Loops, Debugging	170
Conditional Crops	8/12	Conditional Statements, Pattern Recognition	177
Backyard Functions	0/10	Functions, Variables, Events	0
Dog and the loops	8/8	Loops, Variables, Functions	299
Gardening Conditionals	1/6	Functions, Conditional Statements, Sequence, Algorithmic Thinking	12
Swamp conditionals	4/4	Conditional Statements, Loops, Variables, Sequence, Events, Functions, Decomposition, Algorithmic Thinking	185
Baloon pop functions	7/8	Conditional Statements, Loops, Variables, Sequence, Events, Functions, Decomposition, Algorithmic Thinking	96

Loops and castles	8/8	Loops, Variables, Functions	353
Desert conditionals	2/4	Conditional Statements, Loops, Variables, Sequence, Events, Functions, Decomposition, Algorithmic Thinking	125
Predator bird functions	6/7	Conditional Statements, Loops, Variables, Sequence, Events, Functions, Decomposition, Algorithmic Thinking	289
Functions on the field	3/9	Conditional Statements, Loops, Variables, Sequence, Events, Functions, Decomposition, Algorithmic Thinking	0
Fun with Basics	0/3	r	0
Loopy Loops	0/4	r	0
Conditional Crops	0/4	r	0
Backyard Functions	4/6	r	137
Fun with Basics - Grade 1 & 2	4/8		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