

The background is a dark blue field filled with various line-art icons in light blue, yellow, and red. These include: a speech bubble with 'HTML5', another with 'JS', a speech bubble with binary code '01101000' and '01101001', a Python logo, a satellite, a planet with a ring, a network diagram, an '@' symbol, a desktop computer, a globe, a laptop with binary code on its screen, gears, a group of stylized people, a magnifying glass, a cloud with 'tk' and 'AI' inside, a Wi-Fi symbol, and another speech bubble with '</>tk'.

`</>tk`

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8 - Amethyst

# Overview:

6  
Exercise

2.81  
School Average

46  
Levels

22.92  
School Average

# Table:

All exercises			
Exercise	Levels	Concepts	Blocks Used
Fun with Basics	10/10	Sequence, Algorithmic Thinking	130
Loopy Loops	12/12	Loops, Debugging	201
Conditional Crops	4/12	Conditional Statements, Pattern Recognition	102
Dog and the loops	8/8	Loops, Variables, Functions	208
Swamp conditionals	4/4	Conditional Statements, Loops, Variables, Sequence, Events, Functions, Decomposition, Algorithmic Thinking	87
Functions on the field	8/9	Conditional Statements, Loops, Variables, Sequence, Events, Functions, Decomposition, Algorithmic Thinking	146

# 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.

## Data Types

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

## Input and Output

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

## Debugging

Identifying and fixing errors or mistakes in the code.

## Comments

Adding explanations and notes within the code for better understanding.

## Event Handling

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

## Graphics and Animation

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

## Simulation

Creating virtual scenarios to model real-world situations.

## Collaboration

Encouraging teamwork and sharing of code with others.

## Iteration

Repeating a set of instructions or a process.

