

**You may be asking yourself –**

1. **Who are they for?**
2. **What can they do?**
3. **How do you “use” them?**
4. **Why would I/anyone even use them?**

**1. So first – the blocks are targeted towards elementary to middle school aged children, their teachers & their parents. But hey, you’re a big kid right? So let’s dig in.**

**2. The blocks are physical manipulators that allow a user to associate a tangible physical object to an abstract concept – specifically computer programming. The blocks, when connected and “dialed in,” create a functional block of code which is then executed.**

**3. Use of the blocks can vary (flip to see the worksheet) but in a nutshell consider creating sub-50-character programs to reinforce a concept or validate a formula.**

**4. Why? Did you play with Legos? When is the first time you saw a computer program? What about an algorithm? This exposes children to a world earlier – and uses something tangible – not abstract to do it.**

**Your have the following blocks available to you**

|  |  |  |  |
| --- | --- | --- | --- |
| **15 Value Blocks** | **15 Operator Blocks** | **15 Control Blocks** | **7 Output Blocks** |
|  |  |  |  |
| * **a variable {x, y, z, Sum, Count}, or** * **a value from 1-9** | * **= is equality checking NOT assignment** | * **if, else & endif** * **while & endwhile** * **( & )** | * **Sends output to specific channel** |
| ***Sky Blue*** | **Peach** | **Dandelion** | **Sea Green** |

**Ultra Quick Start:**

***Assign the variable x the value of 6:***

|  |  |
| --- | --- |
| **x** | **6** |

***Assign the variable y the value of 3.4:***

|  |  |  |  |
| --- | --- | --- | --- |
| **y** | **3** | **.** | **4** |

**Check if y is equal to x and assign the value to z**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **z** | **(** | **y** | **=** | **x** | **)** |

**If z is false print y/x**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **If** | **(** | **!** | **z** | **)** |
| **Print** | **y** | **/** | **x** |
| **Endif** |

**Exercise #1: Write a program that prints a temperature given in Fahrenheit into Celsius.**

***How many blocks does it take you?***

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**Exercise #2: Write a program that computes Fibonacci numbers less than 25.**

***How many blocks does it take you? <50? <25?***

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**Exercise #3: Create a program from scratch using as many blocks as you can.**

**What does your program do?**

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