

# Intro to Programming

# Objectives

- Explain what programming is.
- Create a algorithm.
- Use correct and specific language to describe code.
- Identify Expressions



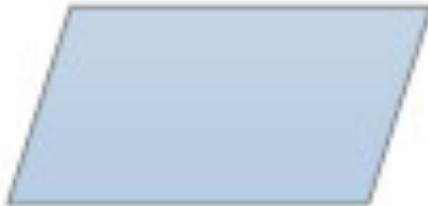


What is  
programming?



# Algorithms





Symbol	Name	Function
	Start/end	An oval represents a start or end point
	Arrows	A line is a connector that shows relationships between the representative shapes
	Input/Output	A parallelogram represents input or output
	Process	A rectangle represents a process
	Decision	A diamond indicates a decision

# Programming Language

C++

JAVA

C#

FLASH

HTML5

HTML

.NET

CSS

VB

PHP

SQL

[illegible]

# Machine Code





# Programming Language

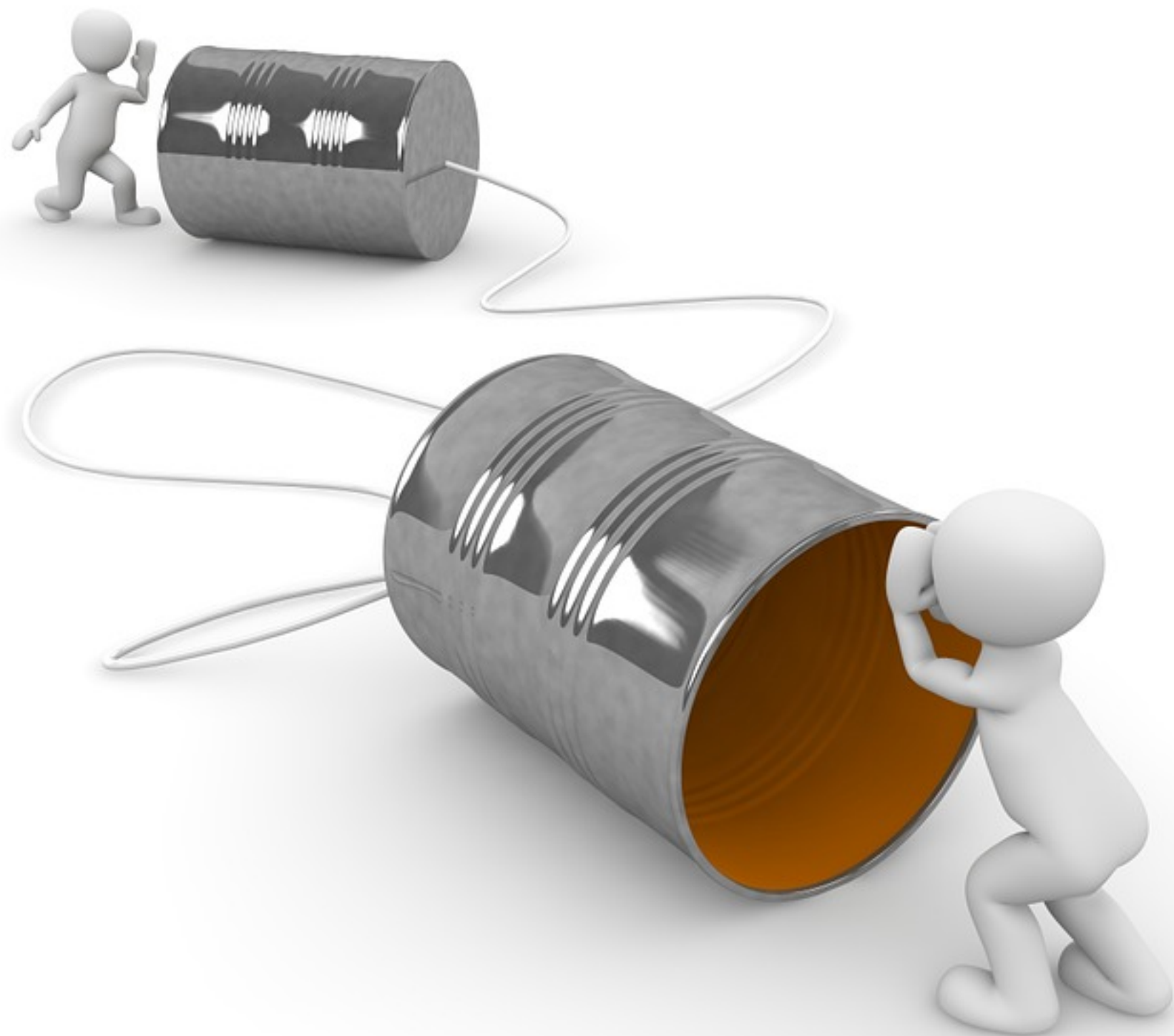


```
1 #include <iostream>
2 using namespace std;
3 int main ()
4 {
5     cout << "Hello World!";
6     return 0;
7 }
8
9
10
```

*Oh, now  
I understand!*

```
01010101010101010101010101010101
101010101010101010101010101010101
1010100010010101010101010101010101
101010101010101010101010101010101
101010101010101010101010101010101
```

*Compiler*



Speaking  
like  
a developer



WHY?



# Declaration

```
var x;
```

# Assignment

```
var x = 1;
```

# Declaration/Assignment

The previous example showed them together .. but they can (and are commonly) placed on different lines.

```
var x;
```

```
x = 1;
```

Identifier  
(variable name)

Keyword

var x = 1

Value

Operator





# Identifiers

## Used in

- Variable Names.
- Function Names.
- Parameter Names.

## Rules

- Must Start with a letter, `_` or `$`.
- The rest may be letters, numbers, `_` or `$`.

# Keywords

- Reserved
- `if` / `function` / `var` / `while` / `this` (and more)

```
var pi = 3.14
```

# Operators

- They act like functions
- Different Syntax

```
var five = 2 + 2
```

# Literals

- Literally represents the data.
- Shorthand - extremely common.

```
var greeting = "Hello g[32]";
```



# Expressions / Statements

- Expression
  - Something that results in a value.
  - `someVar`
  - `1 + 1`
- Statement
  - A block of code that does something
  - `If (x === y) ...`
  - `x = 7;`

# Statement or Expression

```
var x = 1 + 1
```

# Statement or Expression

```
var x = 1 + 1
```

## Trick question . . . both

# Evaluation

The order in  
which Javascript  
does things.





Source Code to Machine Code. Digital image.  
Compiling. Skillcrush, n.d. Web. [http://  
skillcrush.com/2012/06/13/compiling/](http://skillcrush.com/2012/06/13/compiling/).

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