Thomas Jefferson – Center for Communication Technology Magnet
Computer Programming – Key Definitions

Action – instructions performed by a computer program, generally in response to an event.

ActionScript - is used in Adobe Flash and is an object-oriented programming (OOP) language designed specifically for Web site animation. ActionScript makes it possible for developers to create onscreen environments (such as games, tutorials, and e-commerce applications) that can respond to user input through the keyboard or mouse. ActionScript is an *event-based* language: actions are triggered by events.

Boolean - consists of operators such as **AND**, **OR**, **NOT**. Booleans are often used in programming and today in Internet search engines. Boolean expressions are expressions that result in the value of either TRUE or FALSE.

Button – in Flash, a button is a special type of four-frame interactive symbol. Can be used multiple times.

camelCase - a term used to describe a writing technique that capitalizes the beginning of each word and removes any spaces, giving the words the look of the humps on a back of a camel. For example, "ComputerHope", "FedEx", "McDonald's", and "WordPerfect" are all examples of CamelCase. In computer programming **camelCase** is often used as a naming convention for variables, arrays, and functions.

Computer Program – instructions for a computer.

Conditional statement - is a statement performed if a condition is true. **IF** statements are examples of conditional statements.

Data type - is a classification of the type of data that a variable or object can hold in computer programming. The most common data types include boolean, integer, real number, and string.

else- is a programming conditional statement that if previous conditions are not true displays alternate information or performs alternate commands.

else if - is a conditional statement performed after an if statement that if true performs specified instructions.

Event - is an action or occurrence that is detected by the program. Occurs as a result of the user or another source, such as a mouse being clicked or a key being pressed. For example, a user might click on a button within a web page. This would create a "click" event on the button. Windows computer programs are considered to be **event-driven** programs.

Event handler - is a routine that is used to handle the event, allowing a programmer to write code that will be executed when the event occurs.

false - is a Boolean value that is used when the result of a logical statement is false (as opposed to true). For example, you may want to check whether two values are equal and run one block of code when this is true and a different block of code if this is not true.

for - A loop statement in programming that performs predefined tasks while or until a predetermined condition is met.

Frames – in Flash, the program is divided into lengths of time with frames. Each frame contains content such as movie clips, buttons, graphics, or ActionScript. Frames are played repeatedly unless programmed not to.

Function – A named section of a program that performs a specific task. Defined once, can be used multiple times from any place in the program.

If Statement - Programming conditional statement that, if proved true, performs specified instructions.

If else - An **if else** statement in programming is a conditional statement that runs a different set of statements depending on whether an expression is true or false.

Instance - In programming, an **instance** is one occurrence of a class, object, or symbol (in Flash). Each instance may be assigned a unique name so that it can be distinguished from other copies of the same object.

Keyframe – in Flash, a keyframe is a frame that can contain changes from previous frames. Keyframes can contain new visual assets or ActionScript code.

Listeners – "listen" for certain things to happen in a program, such as key strokes or mouse events. Programmers use Listeners to define which events the program will respond to.

Loop - A **loop** describes the process of a program repeating the same instructions over and over until receiving the order to stop.

Method - In programming, a **method** is a function that is a member of a class/object; **Methods** cause an object to do something.

Movie Clip – a type of object used in Flash programs. Movie clips are reusable symbols that have their own timeline, which makes animation easy to implement.

Name – used to identify objects in code.

Null - defines a lack of value.

Properties – define the way objects look on the screen; describe objects in a program. Properties can be changed in design-mode or during run-time. Examples: size, color, text, position.

Reserved word - A word within a programming language that is reserved for special use and cannot be used for other purposes (such as the name of a function or variable).

Scope - The *scope* of a variable is the area of your code where the variable is visible and can be accessed.

Script – a computer script is a list of commands that is executed by a program or scripting engine.

Software Engineering - The programming and production that goes into the software development process. This commonly involves the planning, design, development, testing, and revision of a software application.

Sprites – are visual representations of objects. Can be pictures, graphics, or animations.   Many sprites might be used by one object to simulate different types of movement.

Subroutine - A **subroutine,** also referred to as a **function**, is a section of code that is defined once and may be called and executed multiple times in a program.

Symbol – In Flash, a **symbol** is a graphic, button, or movie clip that is stored in the library and can be used multiple times on the stage.

Syntax – is the set of rules that defines the combinations of word and symbols that are considered to be a correctly structured document or fragment in a programming language.

Timeline – in Flash, the Timeline organizes and controls a document's content over time in *layers* and *frames*. Like movie film, Flash documents divide lengths of time into frames. Layers are like multiple filmstrips stacked on top of one another, each containing a different image that appears on the Stage.

Variable – used to store data in a computer program. This data can then be modified, stored, or displayed whenever needed. Generally used to store text, numbers, or boolean values.

Other Key Things to remember:

```
Object.Property = Value
```

Where:
- **Object** is the name of the object you're customizing.
- **Property** is the characteristic you want to change.
- **Value** is the new property setting.

For example:

```
Form1.Caption = "Hello"
```