For Loop

What if we want our code to execute a specific number of times? We can use a **for** loop to do that.

```
for (initialization; stopping condition; iteration statement)
{
   statement;
}
```

The for loop tells the computer how many times to repeat the instructions using the for keyword and three expressions inside of parentheses. Each of these expressions use what's known as an iterator variable, which is a variable that keeps track of how many times the program goes through the loop.

These expressions are:

Initialization: where the loop begins

Stopping condition: the condition that the iterator variable is evaluated against

Iteration statement: used to update the iterator variable on each loop

The for loop is good to use when you know the number of times you'd like to perform a task before you begin, like printing three copies of a document or inserting eight rows into a table.

In our video game, we want ten flags to appear at the start of each level:

```
for (int i = 0; i < 10; i++)
{
   DisplayFlag();
}</pre>
```

When a computer receives this program it sets a counter to 0 and executes the instructions in the body of the loop, which in this case instructs the computer to display a flag. After each iteration, or one turn through the loop, the program advances the counter by one (i++). The process repeats until the counter

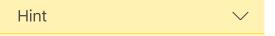
reaches 10, meaning ten iterations are completed and there are ten flags on the screen.

✓Instructions

1.

For your next tool, you want to create a template for your weekly team meeting. Rather than clone a new one each week, you decide to make all of them at once.

Write an empty for loop that runs once for each week in your 16-week long project.



We can use a **for** loop when we have a specific number of items we want to create or destroy:

```
for (int i = 0; i < 10; i++)
{
   DisplayFlag();
}</pre>
```

You'll need roughly 16 templates to get you through your four month project.

Inside of the loop, call the CreateTemplate() method. It takes a number as a parameter that represents what week it is within the project so that when the template is generated it will say Week X at the top, with X representing which week it is.



To call a method with a parameter, make sure to provide an argument that matches the parameter type in the method signature.

For example, during the first week of the project we want it to say Week 1 at the top.