

**Mr. Giansante**



**C++ Programming**  
**Rock Paper Scissors**

**August 2018**

# Rock Paper Scissors

Create a C++ program that simulates a Rock Paper Scissors game between the player and the computer.

The User Interface should look as follows:

```
[R] Rock  
[P] Paper  
[S] Scissors  
[Q] Quit
```

Make your choice: \_

After the user selects, use a Random number to select for the computer.

The user should then be told so ...

Example 1.

```
You chose Rock.  
The computer chose Paper.  
Paper beats Rock.  
So you lost.
```

Example 2.

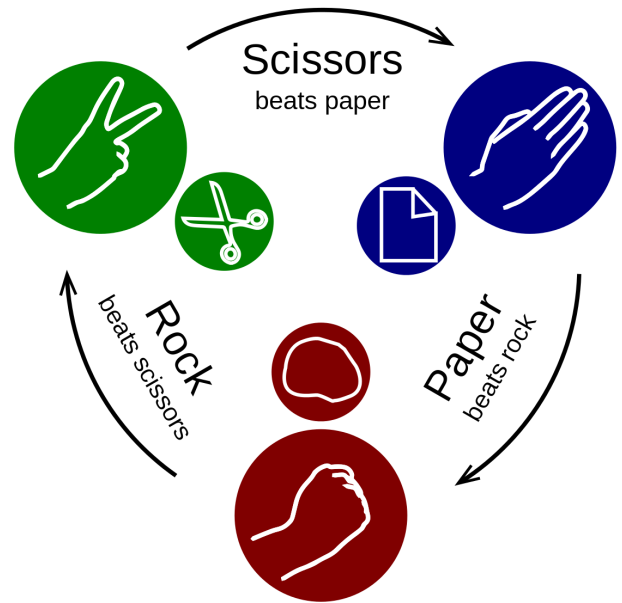
```
You chose Scissors.  
The computer chose Paper.  
Scissors beats Paper.  
So you win.
```

Example 3.

```
You chose Scissors.  
The computer chose Scissors.  
It's a tie.
```

You will need to use many "If" statements.

Bonus: Keep track of how many times the player wins and how many times the computer wins, and display the totals after each turn.



# Rock Paper Scissors



## Learning Outcomes

### Programming Concepts and Skills

- A1. demonstrate the ability to use different data types, including one-dimensional arrays, in computer programs
- A2. demonstrate the ability to use control structures and simple algorithms in computer programs
- A3. demonstrate the ability to use subprograms within computer programs
- A4. use proper code maintenance techniques and conventions when creating computer programs

### Software Development

- B1. use a variety of problem-solving strategies to solve different types of problems independently and as part of a team
- B2. design software solutions to meet a variety of challenges
- B3. design algorithms according to specifications
- B4. apply a software development life-cycle model to a software development project

Please fill out all the information in this column using a pen before getting this assignment marked.

\_\_\_\_\_  
Name

\_\_\_\_\_                      \_\_\_\_\_  
Date                                      Class

## Academic Honesty

The work I am submitting is completely my own creation and has not been copied from anyone else's work. If I have received help on this project, the names of those who have assisted are listed below.

\_\_\_\_\_  
Signature

## Pre-Marking

The following people have pre-marked this assignment:  
(minimum of two)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## User Interface

- Appropriate Title, Author Information, etc.
- Efficient and Esthetically-Pleasing User Interface
- Spelling and Grammar are correct

## Code / Programming Style

- Variables are declared and logically named
- Code is commented where appropriate
- Code is indented and spaced to show structure
- Code is efficient

## Work Ethic / Problem Solving Skills

- Problem Solving Skills are demonstrated
- Makes Productive Use of Time
- Only Seeks Help when Necessary

## Program-Specific Criteria

- User is asked to select Rock, Paper, Scissor, Exit
- Computer's choice is displayed
- Result is displayed: You Lose, You Win, Tie
- Game repeats until Exit is selected
- Score is kept and displayed throughout

## Teacher Comments

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Level 1 - Limited ability to meet standard and limited effectiveness
- Level 2 - Some ability demonstrated and moderately effective
- Level 3 - Considerable ability demonstrated, considerable clarity or accuracy
- Level 4 - Thorough, high degree of skill demonstrated, insightful, highly accurate

## Level