

**Lead up exercise to assignment:**

Students will create a composition using randomized outcomes made with dice rolls and coin flips.

Students will have 6 notes and 2 rhythm values of their choosing.

Each note will correspond to a side of the die and each rhythm value will correspond to a side of the coin.

They will construct a short piece by rolling the die to pick a note, then flipping the coin to pick a rhythm value.

**Assignment:**

Create a program that emulates our exercise using the dice and coin flip.

Consider what you will need in your program to decide which note to play based on which side of the dice or coin is chosen.

Hint: "If the coin flip is heads, use 1 for the sleep value. Otherwise, use 2 for the sleep value"

Methods for chance operations:

*dice* - This method will return a number between 1-6 each time it is called

*rand\_i* - This method will return either a 0 or a 1 when it is called

**Possible Implementations:**

1. Use conditional statement that covers each possible outcome of the dice roll  
Different note for each part  
Use Conditional Statement that cover both sides of coin flip  
Different rhythmic value for each part
2. Store Different notes in an array. Use outcome of dice roll as index for note array.  
Store Rhythmic values in an array. Use outcome of rand\_i as index for rhythm array

**Assessment:**

Successful implementation of 1 or more ways to write this program

Explanation how code emulates the original process of creating this composition.

Rubric:

	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
Writing Program	Successfully writes 2 different programs which recreate original process	Successfully writes program which recreate original process	Program has minimal bugs or unnecessary elements to recreate original process	Program does not accurately recreate original process
Explanation of program	Clearly and logically explains how program emulates original process	Adequately explains how program emulates original process	Explanation on how program emulates original process is unclear/requires more detail	Does not explain how program emulates original process