A Class in Java/Processing is a blueprint

blueprints have facts and information about an object, but it is NOT the object. People use blueprints as a template to build objects

A class is a blueprint for the computer. It has facts and information that the computer uses to build objects. The class is NOT the object itself.

A class in Java has three parts:

instance variables – aka facts of the object

Constructors – how the computer “builds” the objects

methods - the behaviors that the object can perform

The following is an example of a class (label the parts):

class Dice {  
  
 int sideUp;  
 int numSides;  
  
 Dice() {  
 numSides = 6;  
 sideUp = roll();  
 }  
  
 void roll() {  
 sideUp = (int)(Math.random() \* numSides);  
 }  
  
 int getSideUp() {  
 return sideUp;  
 }  
}  
  
How do we get the computer to use a class to create an object? Instantiation.

Dice d1 = new Dice();  
  
How do we get the object to do things? Call its methods.

d1.roll();  
int val = d1.getSideUp();  
d1.roll();  
int val = d1.getSideUp();