Object-Oriented Terminology

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Our minds understand information more readily when the information is framed in an ordered relationship. Throughout history people have used information tools to help perceive the universe around us and then convey it to others. Two of the common tools are:

- o Pictures
  - Artistic impressions
  - Maps
- o Writings
  - Alphabets
  - Mathematics

People normally do not think of these tools as objects. For instance, the word "maps" conjures up many images. How should I, describe a "map" object to others, to convey my image of it?

Well, a "map" object has certain **attributes** that help identify it:

- o Colors
- o Patterns
- o Lines

If I show someone a finished map, I can explain what its implications might mean considering reality. That is fine for a "map" object that is already complete.

But what if I want someone to help me "draw" the "map" object. Suppose I'm very concerned that it be drawn "my way!" Well, I need to develop some **methods** or instructions for them to follow.

When finished, we would have a map that we all understood:
- o What it contained (attributes)
- o How it should be drawn (methods)

This is known as **encapsulation** (the data and methods are tied together).

If I wanted a different map created, I might give someone different values for the attributes but the methods would stay the same. This is known as **inheritance**.

I might have other mapmakers around too. Maybe I break up the project in such a way as one researches the attributes and another draws the maps. Then when I say, "Make me a map," each person knows what role they need to play. This is known as **polymorphism**.

That was a simple example of object-orientation terminology in action. There are several good books around that explain the technology further. Two are listed below. They might be useful to you also.

1) Developing Object-Oriented Software For The Macintosh; by Neal Goldstein and Jeff Alger. Published by Addison-Wesley 1992

2) Object-Oriented Technologies; by David A. Taylor. Published by Addison-Wesley, 1990