

- Independent Variable-factor deliberately changed or manipulated by the scientist
- Dependent Variable-factor that changes as a result of the manipulation of the independent variable (the "unknown" being measured/observed).
- The dependent variable "depends" on the independent variable.

Scientific Question	Independent Variable	Dependent Variable
1. What is the pH of five different liquids?		
2. How does the depth of the ocean affect current velocity?		
3. How water soluble are different sun tan lotions?		
4. What type of wrap protects food from freezer damage?		
5. How effective are commercial fertilizers vs. organic fertilizers on tomato plants?		
6. How does gravity affect the growth of seeds?		
7. What is the relationship between the interior earth depth and temperature?		
8. Does smoking affect lung capacity?		
9. What shutter speed is needed to photograph a moving fan blade?		
10. How well do adults perform on an eighth grade FCAT test?		
Create a scientific question that interests you:		

Read question 5 again. List different variables that could be tested besides type of fertilizers.

1.	2.	3.	4.	5.
6.	7.	8.	9.	10.
11.	12.	13.	14.	15.
16.	17.	18.	19.	20.

Of all the possible variables, only ONE variable is manipulated as the INDEPENDENT VARIABLE. All other variables are kept the SAME within the different test groups as controls. This is a CONTROLLED EXPERIMENT.