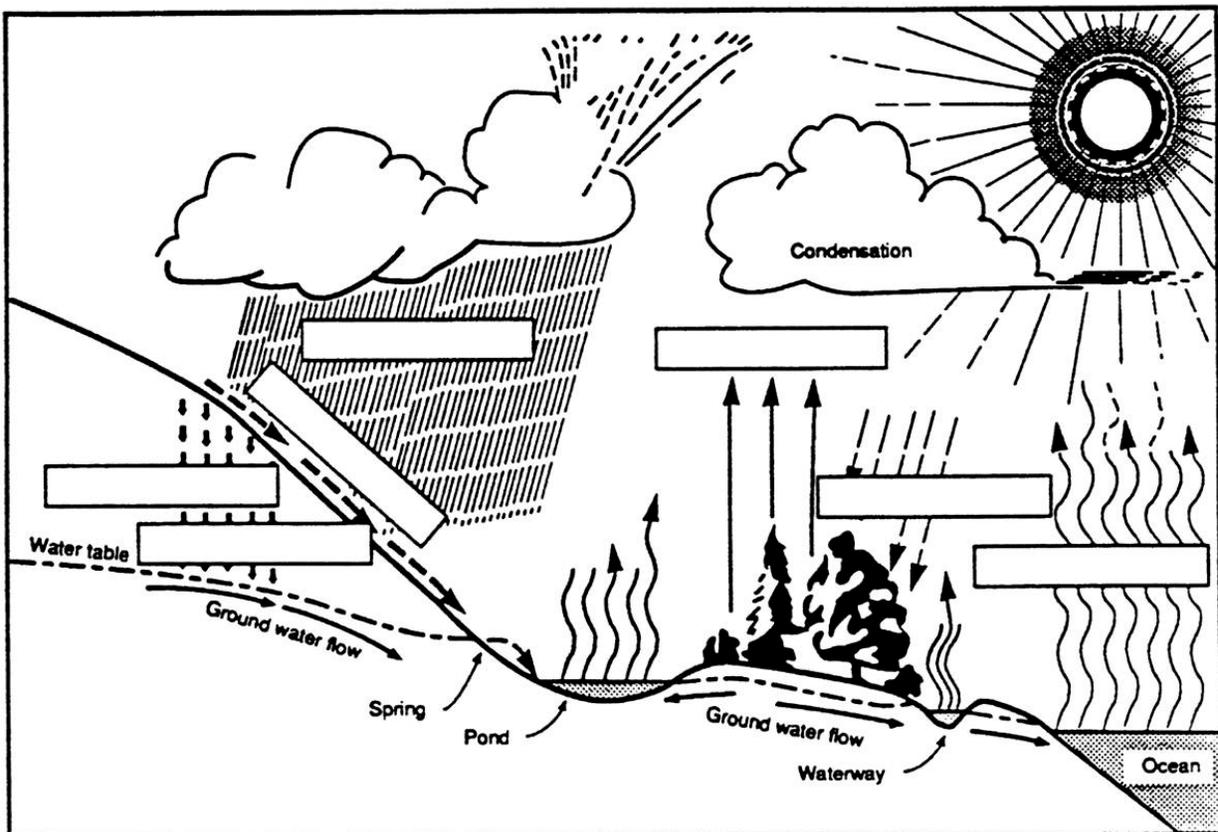


## Activity 1

At this time, complete Activity 1 in your Study Guide to review the material just covered. After finishing the Activity, compare your answers with the solution provided. When you are satisfied that you understand the material, continue with the Study Guide text.

1. In your own words, define hydrology and hydraulics.

2. In the blank spaces below (marked with small black boxes), enter the stages or processes in the hydrologic cycle.



3. Runoff is that part of precipitation which appears as streamflow. There are three types of runoff. In most streams, comes largely from groundwater. Water that reaches the stream by traveling over the soil surface is referred to as Water that moves through upper soil layers and returns to the surface or appears in streams promptly, but does not enter the water table is \_\_\_\_\_ or \_\_\_\_\_.

4. What is direct runoff?

### Activity 2 A

At this time, complete Activity 2 in your Study Guide to review the material just covered. After finishing the Activity, compare your answers with the solution provided. When you are satisfied that you understand the material, continue with the Study Guide text.

1. What are the four typical volume units used in field office activities?
  - a) gal
  - b)  $\text{ft}^3$
  - c)  $\text{in}^2$
  - d) liters
  - e) ac-ft
  - f) milliliters
  - g) watershed inches
  
2. What are four rate units (volume per time) used in field office activities?
  - a) cfs
  - b) gpm or gpd
  - c) cfs-day
  - d) miner's inch
  - e) ft/s
  - f) in/hr
  
3. Define the following common hydrologic terms.
  - a) Time of concentration ( $T_c$ )
  - b) Hydrograph
  - c) Peak discharge ( $\sim$ )
  - d) Velocity ( $V$ )
  - e) Flood routing
  - f) Initial abstraction
  - g) Runoff curve number
  - h) Watershed
  - i) Frequency

4. Convert 4 cfs-day to acre-feet

5. How many acre-feet are there in 37.5 cfs-hours?

6. Convert 3.4 acre-inch per hour to cubic feet per second.

7. Convert 100 gal to cubic feet.