

Unit 2: Graphs and Graph Theory  
2.07 Directed Graphs

A **DIRECTED GRAPH** is a **CONNECTED** graph that has directed edges.

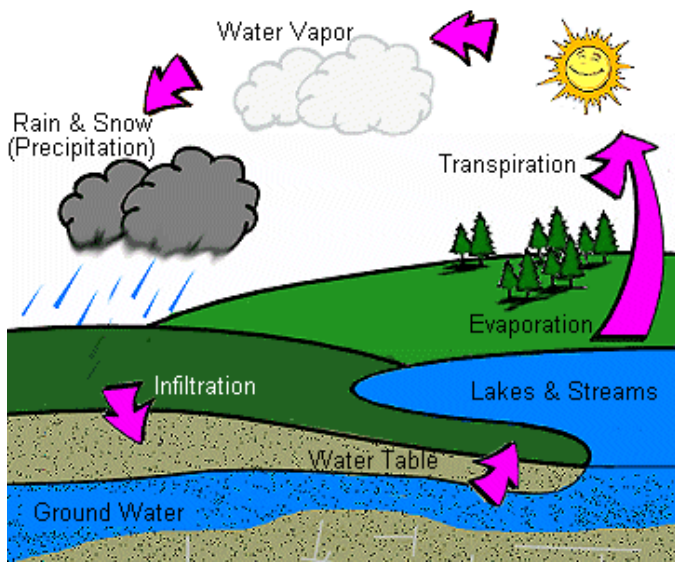
A **DIRECTED GRAPH** is also called a **DIGRAPH**

**DIRECTED EDGES** are indicated using arrow heads.

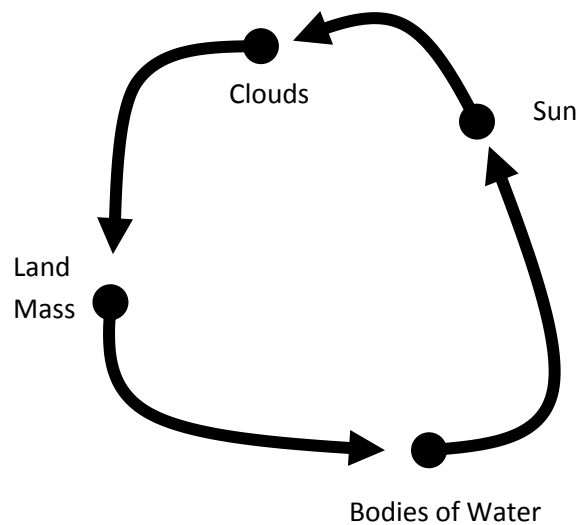
Where have we seen these before?

- Food Cycles
- Ecological Cycles
- Water Cycles

**Ex 1: The WaterCycle**



a) Draw a GRAPH of this situation



b) What are the vertices?

**Bodies of Water, Rain Clouds, Ground, Clouds.**

c) What do the edges represent?

**The Cycle of the water: Evaporation, Infiltration, Precipitation**

**Ex 2: Movement Around**

In the adjacent graph, name:

- All of the edges **{DE, FD, D(1)G, D(2)G, GG, GF}**
- A path from F to D **FDE**
- A circuit **GFD(1)G**

