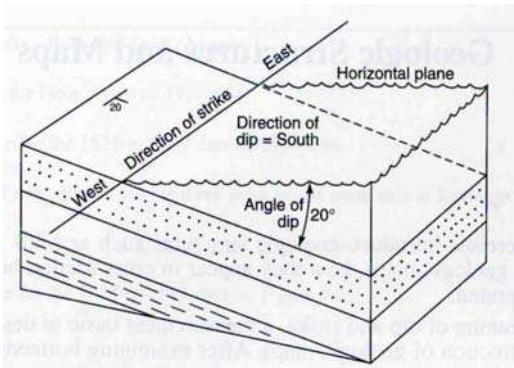


The **Objectives** are to gain experience

1. Drawing cross sections from information given on geologic maps.
2. Recognizing folds and naming their parts on stereoscopic air photos.
3. Thinking in three dimensions.

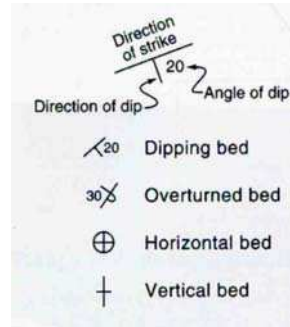
**1. Maps and symbols**

This diagram defines the strike and dip of an inclined plane.



The **strike** is the line that is formed by the intersection of the plane of the inclined bed and a horizontal plane (like sea level).  
 The **dip angle** is the angle the bed makes with the horizontal.  
 The **dip direction** must be 90° from the strike direction and is the direction a marble would roll down on one of the dipping beds.

These symbols are used on geologic map to convey the orientation of planar beds. Note the symbols for horizontal, vertical, and overturned beds.

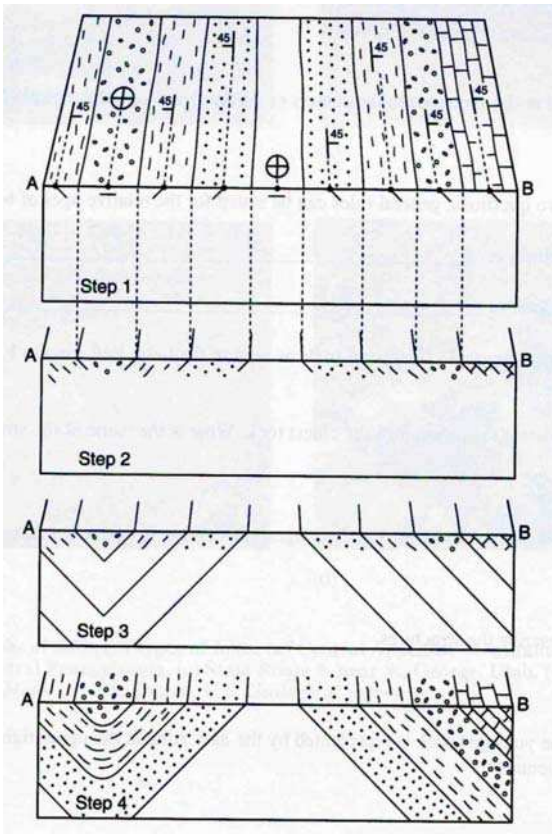
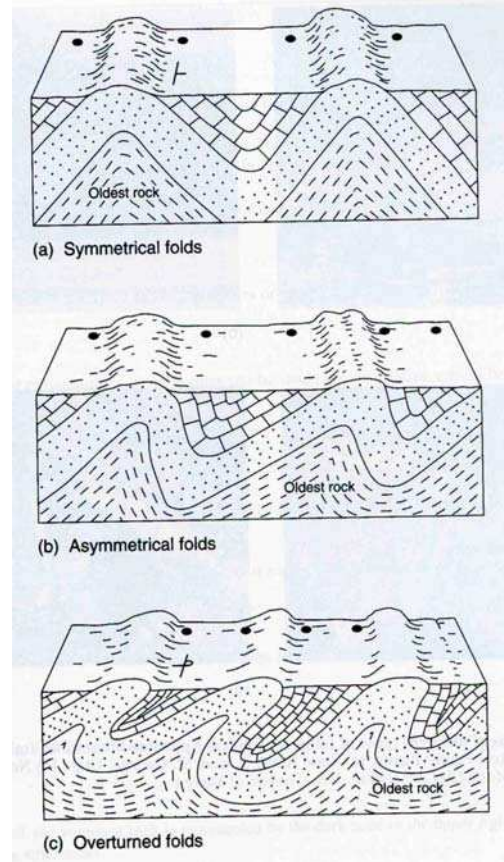


Overturned beds are those in which the stratigraphic top of the beds are lower than the stratigraphic bottom. Also note the use of the strike and dip symbol on the diagram to the left.

On the diagram to the right, draw in the appropriate strike and dip marker where indicated by the dark circles. A few examples are done for you. On (c), watch out for overturned beds.

## 2. Drawing Cross Sections

In this section we will learn to draw cross sections based on information given on geologic maps. The diagram on the lower left shows a step by step approach to drawing cross sections. Note that the strike and dip symbols are used to determine dip. But on the cross sections the contacts between the sedimentary units as well as the internal patterns for the sedimentary units are used to convey the sense of dip.



On the diagram below, follow the example and draw a cross section on the front part of the block.

