



Figure 12.4. Coronal section of heart.

- _____ 1. The sinoatrial node is called the pacemaker because it is normally the first part of the heart to _____ .
- _____ a. Since some of its cells have unstable membrane potentials, the S-A node does not need outside stimulation to _____ .
- _____ b. The depolarization of the S-A node causes the contraction of the _____ .
- _____ 2. As the atria depolarize, the next part of the cardiac conduction system that is stimulated is the _____ .
- _____ a. The A-V node is connected to the _____ .
- _____ b. The A-V bundle leads the depolarization into the _____ of the heart along the _____ .
- _____ 3. The first part of the ventricles to depolarize is the _____ , then the _____ .
- _____ a. Then the depolarization continues back toward the _____ .
- _____ b. This means that the ventricles contract from the _____ (apex up, valves down).
- _____ 4. Stimulation from the vagus nerve (parasympathetic) decreases the activity of the _____ and _____ . This causes the heart rate to _____ (increase, decrease).
- _____ 5. Stimulation from the sympathetic nerves increases both the force and rate of myocardial contraction. Therefore, this stimulation causes the heart to beat _____ (faster, slower) and _____ (more, less) vigorously.