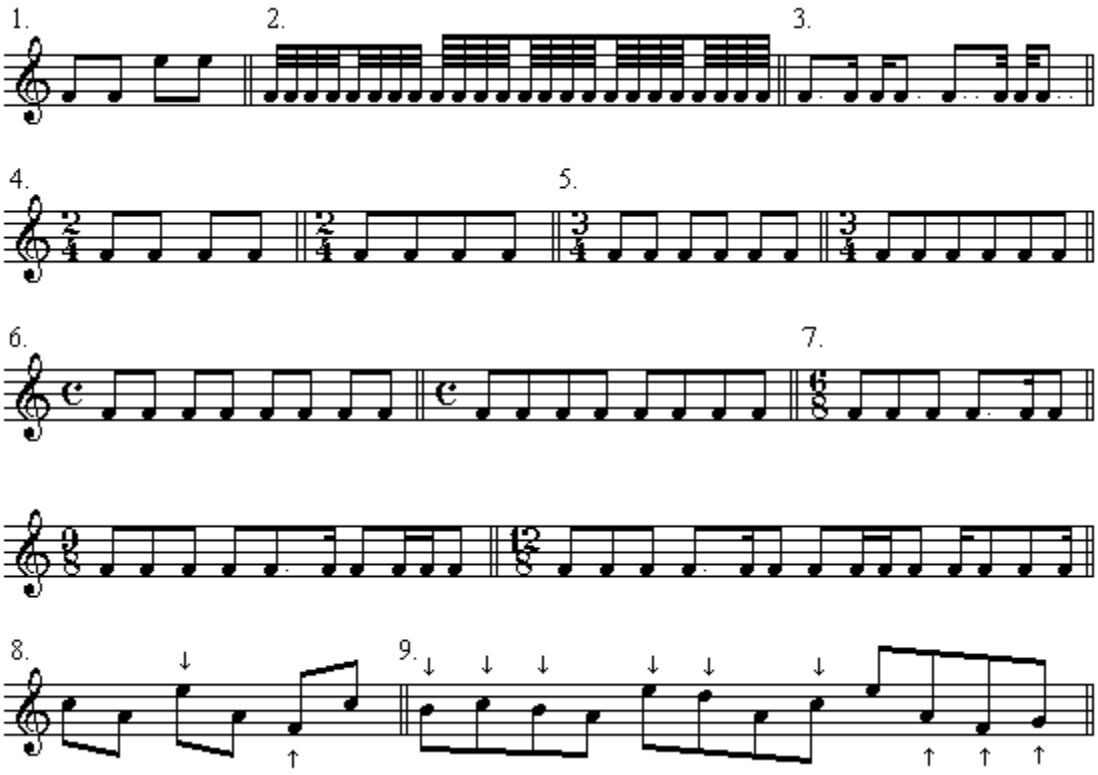
Notation Basics: Stems & Ties, Beams, Accidentals

Stems & Ties

1. STEM LENGTH: one octave.
2. STEM LENGTH WITH LEGER LINES: When a note extends beyond one leger line, the stem must touch the middle staff line.
3. STEM DIRECTION
   The principle is to keep as much of the stem on the staff as possible. The specifics to apply:
   a. For notes *above the middle staff line*, the stem is down.
   b. For notes *below the middle staff line*, the stem is up.
   c. For notes *on the middle staff line*, the stem can be up or down according to the context of the notes around it.
   d. When two notes are an *equal distance from the middle line*, the preferred direction is down.
   e. If the *note above is farther from the middle line* than the note below, the stem goes down.
   f. If the *note below is farther from the middle line*, the stem goes up.
   g. When the *outer notes* (extreme top and bottom notes) are an *equal distance from the middle line* and the majority of notes are above the middle line, the stem goes down.
   h. When the *outer notes* are an *equal distance from the middle line* and the majority of notes are below the middle line, the stem goes up.

6. CHORDS WITH THE INTERVAL OF A 2nd: The stem is always placed *between the two notes* of an interval of a 2nd, with the *upper note always to the right*--the lower note always to the left.
7. NOTES SHARING A STAFF: Notes have *opposite stem direction* when sharing a staff if the parts represent different melodic lines. Stems in the "wrong direction" will have shorter stems than normal.
8. TIES: Tie noteheads, *not* stems, away from the stems.

Beams



Beams greatly simplify the reading of music, substituting for individual flags in groupings of notes smaller than a quarter note. Because of the ease in reading beams, the use of flags in vocal music--in relation to the lyric--has become obsolete.

1. CONNECTION TO THE STEM: Beams are connected to the side of the stem. They must be flush to the stem, both vertically and horizontally.
2. PRIMARY AND SECONDARY BEAMS: The beam that is farthest from the noteheads and connects a group of notes is called a **primary beam**. This beam remains unbroken throughout the grouping. Any beam other than the primary beam is a **secondary beam**. The secondary beam may be broken to divide the grouping into smaller units for easier reading.
3. FRACTIONAL BEAMS: A **fractional beam** is also a secondary beam, and is associated with only one note. The length of a fractional beam is the same as the width of a notehead, and is always placed *inside* the grouping, usually following or preceding a beamed, dotted note.

Beaming and Meter

The basic purpose of a beam is to connect two or more notes within the same beat. Meter must be considered when grouping notes with a beam. In any simple meter, each beat is divisible by two; a beam may connect the two notes.

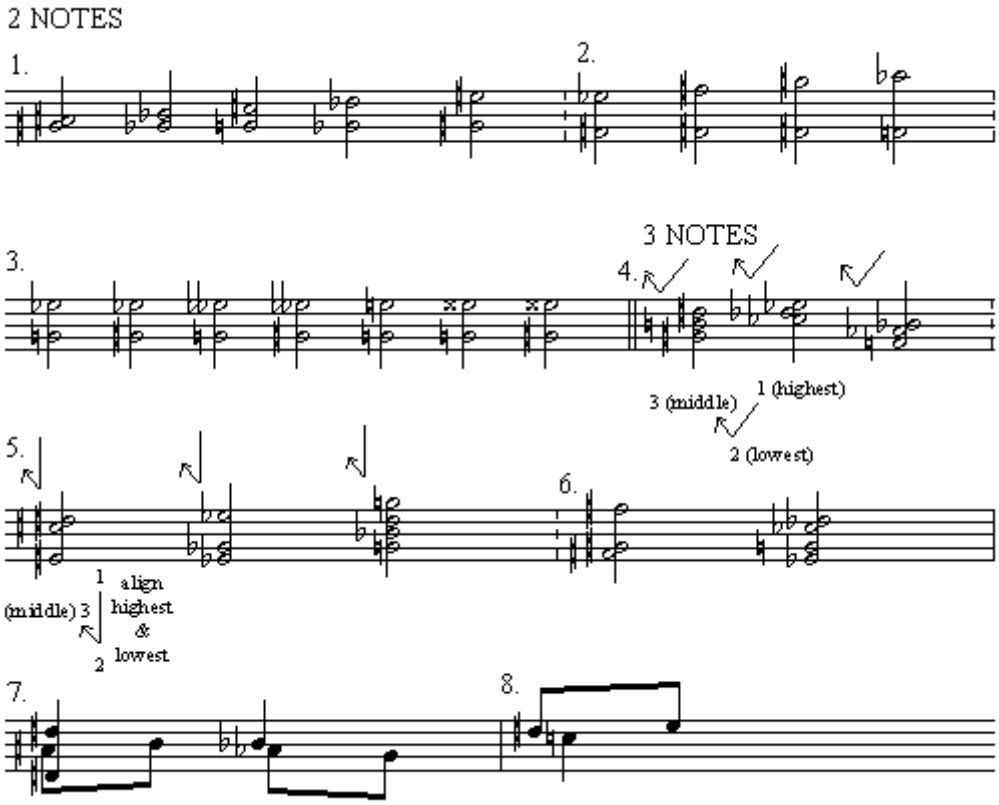
4. 2/4: Either beaming is permissible.
5. 3/4: Either beaming is permissible.
6. 4/4: Either beaming is permissible; however, do not connect the notes of beat two with the notes of beat three.

7. 6/8, 9/8, 12/8: When each pulse of the measure is divided into three parts, the meter is called *compound*. A beam indicates each triple grouping.
8. STEM DIRECTION OF BEAMED GROUPS:

- (a) If both notes are the same distance from the middle line, the preference is for stems down.
- (b, c) Stem direction is determined by the note *farthest* from the middle line.

9. MULTIPLE BEAMED NOTES: If the majority of the notes are *on or above* the middle line, the stems go down. If the majority of the notes are *below* the middle line, the stems are up.

Accidentals



1. For intervals of a **2nd through a 6th**, place the *upper accidental closest to the note, and the lower accidental to the left*.
2. When intervals are **greater than a 6th**, accidentals align vertically.
3. For the **interval of a 6th**, if the two accidentals don't collide they may be aligned vertically.
4. When *outer notes* are a **6th or less,** the upper accidental is closest to the note, the lower accidental is placed left, and the middle accidental is placed farthest left.
5. When *outer notes* are **greater than a 6th**, *upper and lower accidentals are aligned closest to the notes--the middle accidental is placed to the left.*
6. **Accidentals for the 2nd** should usually be **"shaped like the 2nd"** (if the outer notes are greater than a 6th).
7. **Accidentals are always placed before the entire note structure**. (Do not place an accidental between notes that are played together, even if they are stemmed in opposite directions.)
8. This example is incorrect, since the natural is placed between notes.