

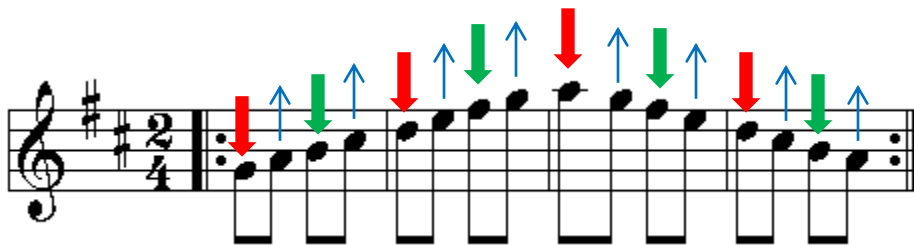
The **beat** is the basic unit of time in music. Beat can refer to a variety of related concepts including: timing, tempo, meter, rhythm and groove. Bagpipe and other music is characterized by a repeating sequence of stressed and unstressed beats (often called "strong" and "weak") and divided into measures organized by time signature and tempo indications (beats per measure).

Without getting into too much music theory, the **downbeat** is the impulse that occurs at the beginning of a bar in measured music. Its name is derived from the downward stroke of the director or conductor's baton on the first beat of each measure. It frequently carries the strongest accent of the rhythmic cycle. However, in some cases, the downbeat may not be emphasized. Such departure from the normal stress pattern of a measure is a form of syncopation.

On- and Off-Beat

In 4/4 time, counted as "**1 2 3 4, 1 2 3 4...**", the first beat of the bar (**down-beat**) is usually the strongest accent in the melody. This is usually played louder on the bass drum than the other beats. The third is the next strongest: these are "**on-beats**." The second and fourth are weaker - the "**off-beats**". Subdivisions (like eighth notes) that fall between the pulse beats are even weaker and these, if used frequently in a rhythm, can also make it "off-beat".

In the 2/4 example below, all the **on-** and **off-**beats are marked with arrows; strong beats are highlighted, off-beats are not. The **red** arrow is the down-beat.



If you take a piece of pipe music and mark all the on-beats with a pencil (which you should do with all your music) you will notice that most of the major pieces of execution fall on an on-beat. If you go one step further and mark all the off-beats, you will find that most of the remaining pieces of execution fall on these. Embellishments nearly always align themselves with an on-beat or off-beat. Let's use the first part of *The Gardens of Skye* as an example:

The Gardens of Skye **March** **Addie Harper**

Two staves of musical notation in 2/4 time with a key signature of one sharp (F#). The first staff is for 'The Gardens of Skye' and the second for 'Addie Harper'. Both staves feature a melody of eighth notes. Above the staves, arrows indicate the beat type: red arrows point down to the first and third beats of each measure (downbeats), green arrows point down to the second and fourth beats (on-beats), and blue arrows point up to the eighth notes (off-beats). The notation includes various musical symbols such as stems, beams, and repeat signs.

So...why aren't there more  arrows? Syncopation.

Syncopation includes a variety of rhythms which are in some way unexpected in that they deviate from the strict succession of regularly spaced strong and weak but also powerful beats in a meter (pulse). These include a stress on a normally unstressed beat where one would normally be stressed. If a part of the measure that is usually unstressed is accented, the rhythm is considered to be syncopated. More simply, syncopation is a general term for a disturbance or interruption of the regular flow of rhythm; a placement of rhythmic stresses or accents where they wouldn't normally occur.