

## Lesson 16: Major keys and key signatures

In this lesson you will learn about major keys and key signatures.

Each major scale embodies a distinctive network of relationships. Each contains its own unique tonic, its own unique supertonic, its own unique mediant, and so on. Two major scales may have as many as six notes in common, but no two scales contain all of the same notes. Every major scale contains one and only one statement of each of the seven letter names (A, B, C, D, E, F, G)—only the accidentals vary, but this variety is enough to distinguish the scales from each other.

Scale-degree Name Syllable	1 tonic <i>do</i>	2 supertonic <i>re</i>	3 mediant <i>mi</i>	4 subdominant <i>fa</i>	5 dominant <i>sol</i>	6 submediant <i>la</i>	7 leading tone <i>ti</i>
C major	C	D	E	F	G	A	B
G major	G	A	B	C	D	E	F#
D major	D	E	F#	G	A	B	C#
A major	A	B	C#	D	E	F#	G#
E major	E	F#	G#	A	B	C#	D#
B major	B	C#	D#	E	F#	G#	A#
C# major	C#	D#	E#	F#	G#	A#	B#
F# major	F#	G#	A#	B	C#	D#	E#
D# major	D#	E#	F#	G#	A#	B#	C#
A# major	A#	B#	C#	D#	E#	F#	G#
E# major	E#	F#	G#	A#	B#	C#	D#
B# major	B#	C#	D#	E#	F#	G#	A#
F major	F	G	A	B	C	D	E

This network of relationships within each scale is what defines a *key*. A piece is in the key of D major, for example, if it begins and ends by using the notes of the D major scale and treats D as tonic, A as dominant, C# as leading tone, and so on. In pieces that are based on a particular major scale, it would be possible just to write the necessary accidentals each time they are called for, but this would be cumbersome. Instead, the necessary accidentals are simply written at the beginning of each line of the piece, right after the clef, in a *key signature*.

The A major scale, for example, uses three sharps: F#, C#, and G#. Instead of writing sharp signs in front of every F, C, and G in a piece, composers just write the appropriate key signature, and all of the Fs, Cs, and Gs are automatically sharpened.



Key signature



The accidentals in the key signature need to be written in the proper place on the staff and in the proper order. The key of C major has a key signature of no sharps and no flats. The key of G major uses one sharp, namely F#, and a sharp sign is placed accordingly on the top line of the treble staff and the fourth line of the bass staff.



That key signature indicates that every time the note F appears, in any octave, it will be played as F# (unless a natural sign is used temporarily to cancel it).

Shifting to a tonic five steps higher, the key of D major uses two sharps: F# and C#. Sharp signs are accordingly placed on the top line of the treble and the fourth line of the bass staff (these sharp all of the Fs) and on the third space of the treble and the second space of the bass staff (these sharp all of the Cs).



Moving another five steps higher, A major uses three sharps: F#, C#, and G#.



Keys with flats in their signature work the same way. The key of F major, five steps below C, has a signature of one flat: B $\flat$ . Five steps below F, the key of B $\flat$  major has a signature of two flats: B $\flat$  and E $\flat$ . Five steps below B $\flat$ , the key of E $\flat$  major has a signature of three flats: B $\flat$ , E $\flat$ , and A $\flat$ . As with sharps, these accidentals are written on particular lines or spaces of the treble and bass staves and apply throughout a piece in all octaves.



The key signatures for all of the major keys can be written conveniently around the circle of fifths.

