

Scales and Modes

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Each major and minor scale has seven different notes. They're often called "scale degrees," designated by Roman numerals. For example, here are the scale degrees of C major and A natural minor (half steps are bolded and underlined; all others are whole steps):

<i>Scale Degrees:</i>	<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>	<i>V</i>	<i>VI</i>	<i>VII</i>	<i>I</i>
C Major:	C	D	<u>E</u>	<u>F</u>	G	A	<u>B</u>	<u>C</u>
A natural minor:	A	<u>B</u>	<u>C</u>	D	<u>E</u>	<u>F</u>	G	A

This shows that every **major scale** has half steps between scale degrees III and IV and scale degrees VII and I, and every **natural minor scale** has half steps between scale degrees II and II and scale degrees V and VI.

All major and natural minor scales are built on the same continuous Basic Pattern: a half step ("H") separated by either two or three whole steps ("W").¹ Major and natural minor scales have different positions on the Basic Pattern.

Major:	H	W	W	H	W	W	W	H	<u>W</u>	<u>W</u>	<u>H</u>	<u>W</u>	<u>W</u>	<u>W</u>	<u>H</u>	W	W	H	
Natural Minor:	H	W	W	H	W	W	<u>W</u>	<u>H</u>	<u>W</u>	<u>W</u>	<u>H</u>	<u>W</u>	<u>W</u>	<u>W</u>	W	H	W	W	H

The Modes: Major and natural minor are just two of a total of seven ways in which a seven-note scale can be fitted onto the Basic Pattern. These seven ways are known as the "Modes." By tradition, the Modes are named after ancient Greek tribes: Ionian, Dorian, Phrygian, Lydian, Mixolydian, Aeolian, and Locrian. Major is the same as Ionian Mode, and natural minor is the same as Aeolian Mode.

Ionian (half steps at III/IV and VII/I):	<u>W</u>	<u>W</u>	<u>H</u>	<u>W</u>	<u>W</u>	<u>W</u>	<u>H</u>	W	W	H	W	W	W
Dorian (half steps at II/III and VI/VII):	W	<u>W</u>	<u>H</u>	<u>W</u>	<u>W</u>	<u>W</u>	<u>H</u>	<u>W</u>	W	H	W	W	W
Phrygian (half steps at I/II and V/VI):	W	W	<u>H</u>	<u>W</u>	<u>W</u>	<u>W</u>	<u>H</u>	<u>W</u>	<u>W</u>	H	W	W	W
Lydian (half steps at IV/V and VII/I):	W	W	H	<u>W</u>	<u>W</u>	<u>W</u>	<u>H</u>	<u>W</u>	<u>W</u>	<u>H</u>	W	W	W
Mixolydian (half steps at III/IV and VI/VII):	W	W	H	W	<u>W</u>	<u>W</u>	<u>H</u>	<u>W</u>	<u>W</u>	<u>H</u>	<u>W</u>	W	W
Aeolian (half steps at II/III and V/VI):	W	W	H	W	W	<u>W</u>	<u>H</u>	<u>W</u>	<u>W</u>	<u>H</u>	<u>W</u>	<u>W</u>	<u>W</u>
Locrian (half steps at I/II and IV/V):	W	W	H	W	W	W	<u>H</u>	<u>W</u>	<u>W</u>	<u>H</u>	<u>W</u>	<u>W</u>	<u>W</u>

The Modes can be thought of as starting on different scale degrees of a major scale. Here, for example, are all the Modes with the notes of C major, and with the scale degrees of C major indicated (half steps are bolded and underlined):

<i>Scale Degrees of C major:</i>	<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>	<i>V</i>	<i>VI</i>	<i>VII</i>	<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>	<i>V</i>	<i>VI</i>	<i>VII</i>
Ionian (starts on I):	C	D	<u>E</u>	<u>F</u>	G	A	<u>B</u>	<u>C</u>						
Dorian (starts on II):		D	<u>E</u>	<u>F</u>	G	A	<u>B</u>	<u>C</u>	D					
Phrygian (starts on III):			<u>E</u>	<u>F</u>	G	A	<u>B</u>	<u>C</u>	D	E				
Lydian (starts on IV):				F	G	A	<u>B</u>	<u>C</u>	D	<u>E</u>	<u>F</u>			
Mixolydian (starts on V):					G	A	<u>B</u>	<u>C</u>	D	<u>E</u>	<u>F</u>	G		
Aeolian (starts on VI):						A	<u>B</u>	<u>C</u>	D	<u>E</u>	<u>F</u>	G	A	
Locrian (starts on VII):							<u>B</u>	<u>C</u>	D	<u>E</u>	<u>F</u>	G	A	B

¹ This Basic Pattern is sometimes called the "White Note Pattern" because that's how the white keys on modern keyboards are arranged.