How Modes are Relative to the Ionian/Major Scale

The following chart shows the C Ionian scale and all of it's relative scales based off of itself. Keep in mind that the Ionian mode is the same as a major scale, and the Aeolian mode is the same as the pure or natural minor scale. Ionian is the first mode and each successive mode is based off the next note in the Ionian scale. For example, Dorian is the second mode and D Dorian is based on the second note of the C Ionian scale. Another example is the A Aeolian/minor scale, which is the sixth mode, is based off of the sixth note of the C Ionian scale. Notice that in the key of C major that there aren't any sharps or flats. In the key of G Ionian/major, which has an F#, each successive mode based off of itself will have F# in it's scale. The "*H*" shows where the half steps fall in each scale. All other intervals between notes are whole steps.

			H				*H*							
1. **Ionian**	1	2	*3*	*4*	5	6	*7*	*8*						
(Major)	C	D	*E*	*F*	G	A	*B*	*C*						
2. **Dorian**		1	*2*	*3*	4	5	*6*	*7*	8					
		D	*E*	*F*	G	A	*B*	*C*	D					
3. **Phrygian**			*1*	*2*	3	4	*5*	*6*	7	8				
			E	*F*	G	A	*B*	*C*	D	E				
										H				
4. **Lydian**				1	2	3	*4*	*5*	6	*7*	*8*			
				F	G	A	*B*	*C*	D	*E*	*F*			
5. **Mixolydian**					1	2	*3*	*4*	5	*6*	*7*	8		
					G	A	*B*	*C*	D	*E*	*F*	G		
6. **Aeolian**						1	*2*	*3*	4	*5*	*6*	7	8	
(Minor)						A	*B*	*C*	D	*E*	*F*	G	A	
7. **Locrian**							*1*	*2*	3	*4*	*5*	6	7	8
							B	*C*	D	*E*	*F*	G	A	B

The emotional sound effect of where half steps fall in a scale:

Certain moods and tensions are portrayed depending on where the half step intervals fall within a scale. All of the above modes are diatonic scales. This means that they are eight note scales made up of whole and half steps. In general, half steps between the 3rd and 4th notes, and the 7th and 8th notes gives a happy or bright effect. Half steps between the 2nd and 3rd notes, and the 5th and 6th notes gives a sad or emotional effect. A half step between the 6th and 7th notes makes the 7th tone function as a m7 or a dominant seventh, which gives a mellow or blues effect. A half step between the 1st and 2nd notes gives a mysterious or Spanish type of effect. Having a half step between the 4th and 5th notes creates a bit of a dissonant effect.