

# Music Theory Fundamentals Cheatsheet

A concise cheat sheet covering essential music theory concepts, including scales, chords, rhythm, and harmony, designed for musicians and music enthusiasts.



### **Basic Elements**

## Pitch & Notation

Pitch:	The highness or lowness of a tone. Represented on a musical staff.
Staff:	Five horizontal lines on which music notes are placed.
Clef:	Symbol that indicates the pitch of the notes on the staff (e.g., Treble Clef, Bass Clef).
Notes:	Symbols that represent musical sounds and their duration.
Accidentals:	Symbols that alter the pitch of a note (e.g., Sharp (#), Flat (b), Natural (ង្)).
Octave:	Interval between one musical note and another with half or double its frequency.

### Rhythm & Meter

**Minor Scales** 

Beat:	The basic unit of time in music.
Tempo:	The speed of the beat (e.g., BPM - Beats Per Minute).
Meter:	The organization of beats into regular groupings (e.g., 4/4 time, 3/4 time).
Time Signature:	A symbol that indicates the meter of a piece of music (e.g., 4/4, 3/4, 6/8).
Note Durations:	How long a note is held (e.g., whole note, half note, quarter note, eighth note).
Rests:	Symbols that indicate silence for a specific duration.

# Dynamics & Articulation

Dynamics:	The loudness or softness of a sound (e.g., <i>p</i> - piano, <i>f</i> - forte).
Crescendo:	Gradually getting louder.
Decrescendo:	Gradually getting softer.
Articulation:	How a note is played (e.g., staccato, legato, marcato).
Staccato:	Short and detached.
Legato:	Smooth and connected.

## **Scales & Keys**

## Major Scales

Definition:	A diatonic scale with a characteristic bright sound.
Formula:	Whole - Whole - Half - Whole - Whole - Whole - Half (W-W-H-W- W-W-H)
C Major:	C-D-E-F-G-A-B-C (No sharps or flats)
G Major:	G-A-B-C-D-E-F#-G (One sharp: F#)
D Major:	D-E-F#-G-A-B-C#-D (Two sharps: F#, C#)
Key Signature:	Sharps or flats at the beginning of a staff indicating the key of a composition.

Natural Minor:	A diatonic scale with a characteristic darker sound. Relative minor is 3 semitones below major scale's tonic.
Formula:	W-H-W-W-H-W-W
A Minor:	A-B-C-D-E-F-G-A (No sharps or flats)
Harmonic Minor:	Natural minor with a raised 7th degree.
Melodic Minor:	Raised 6th and 7th ascending, natural minor descending.
Relative Minor:	Minor key that shares the same key signature as a major key (e.g., A minor is the relative minor of C major).

#### Other Scales

Pentatonic Scale:	A five-note scale. Common in many musical traditions.
Chromatic Scale:	A scale that includes every semitone.
Blues Scale:	A scale with characteristic bluesy intervals. Often includes a 'blue note'.
Whole Tone Scale:	Scale in which each note is separated from its neighbors by the interval of a whole step.
Diminished Scale:	An eight-note scale built with alternating whole and half steps.
Augmented Scale:	A six-note scale built with alternating minor thirds and semitones.

# **Chords & Harmony**

### **Basic Chord Types**

Major Chord:	Root, major third, perfect fifth (e.g., C-E-G)
Minor Chord:	Root, minor third, perfect fifth (e.g., C-Eb-G)
Diminished	Root, minor third, diminished
Chord:	fifth (e.g., C-Eb-Gb)
Augmented	Root, major third, augmented
Chord:	fifth (e.g., C-E-G#)
Suspended Chord:	A chord in which either the third is omitted, replaced by a perfect fourth (sus4) or a major second (sus2).
Dominant	Major triad with a minor seventh.
7th:	(e.g., G7: G-B-D-F)

### **Chord Progressions**

I-IV-V:	A fundamental chord progression in many genres.
ii-V-I:	Common jazz progression. (e.g., Dm7-G7-Cmaj7 in C Major)
vi-IV-I-V:	Another very common progression. (e.g., Am-F-C-G in C Major)
Inversions:	Rearranging the notes in a chord so that a note other than the root is the lowest.
Voice Leading:	The art of smoothly connecting chords by minimizing the movement between individual notes.
Cadence:	A sequence of chords that brings an end to a phrase, section, or piece.

#### Harmonic Functions

Tonic (I):	The 'home' chord, providing stability.
Subdominant (IV):	Leads away from the tonic, creating tension.
Dominant (V):	Creates strong tension and leads strongly back to the tonic.
Submediant (vi):	Often acts as a substitute for the tonic.
Supertonic (ii):	Typically progresses to the dominant.
Mediant (iii):	Can act as a substitute for the tonic or dominant.

# **Advanced Concepts**

### Modes

Polyrhythm	s
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Ionian:	Same as the Major Scale (W-W-H- W-W-W-H)	C
Dorian:	Minor scale with a raised 6th (W-H- W-W-W-H-W)	E
Phrygian:	Minor scale with a lowered 2nd (H- W-W-W-H-W-W)	Δ
Lydian:	Major scale with a raised 4th (W- W-W-H-W-W-W-H)	Т
Mixolydian:	Major scale with a lowered 7th (W- W-H-W-W-H-W). Also known as the Dominant Scale.	
Aeolian:	Same as the Natural Minor Scale (W-H-W-W-H-W-W)	S
Locrian:	Has a diminished 5th and is rarely used (H-W-W-H-W-W-W)	
		F

Definition:	The simultaneous use of two or more conflicting rhythms.
Example:	Playing 3 notes against 2 notes simultaneously (3:2).
Application:	Used to create complex and interesting rhythmic textures.
Tuplets:	A rhythm that divides a beat into a different number of equal subdivisions than is normally indicated by the time signature. e.g., triplets in 4/4.
Syncopation:	Placing emphasis on unexpected beats or off-beats. Can be created by accenting weak beats, using rests on strong beats, or tying notes across beats.
Hemiola:	A rhythmic pattern in which, for example, two bars in simple triple time are articulated as if they were three bars in simple duple time. Can be created by changing the grouping of beats, e.g., from 3 groups of 2 to 2 groups of 3.

## Non-Diatonic Harmony

Borrowed Chords:	Chords taken from a parallel key (e.g., using a minor iv chord in a major key).
Secondary Dominants:	Dominant chords that resolve to a chord other than the tonic.
Altered Dominants:	Dominant chords with altered tones (e.g., b9, #5) to create a stronger pull to the tonic.
Passing Chords:	Chords used to create a smooth transition between two diatonic chords. They are often chromatic and do not have a strong harmonic function.
Modulation:	Changing from one key to another in a piece of music.
Pivot Chord:	A chord common to both the original key and the new key, used to smooth the transition during modulation.