

Music Theory For Sound Editors

Why Learn About Music ?

- 1. Most audio projects include music:
 - Music albums and CDs
 - All marketing media except paper
 - Even voice auditions have background music
 - All introductions for shows, presentations

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Why Learn About Music ?

- 2. The right music is a **powerful communicator**.
 - 25% or more of a film's communication is through music
 - Happiness, sadness, fear, danger, tension, pace
 - Conflict is coming – Conflict is over
 - Themes communicate character and place

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Why Learn About Music ?

- Supporting music for drama, game design, ambiance, **is not difficult** to create if you understand a few basic musical relationships.
 - Fundamentals
 - Scale - Meter - Key
 - Cookbook strategies
 - Tension - Resolution - Simple Melodic Backgrounds
 - Simple repeatable building blocks
 - The right combination of notes
 - Happy note combinations - Sad ones- Tense ones

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Beats and Meter

- 3. Software such as loop editors and sequencers use basic musical structure, notation, and terminology for the user interface.
 - You need to understand basic musical terminology to make the most of the tools
- 4. If more sophisticated music is required, as producer. you need to be able to communicate with musicians.

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- Beats
 - Fundamental pulses at regular time interval
- Tempo
 - Beats per minute
- Measure
 - A handy building block - usually about 1 to 4 seconds long
 - A pulse-group. In pop music, some aspect of the music often repeats (with variations), like a basic drum or bass pattern
- Meter
 - How many beats/notes in a measure
 - Indicated by a *Time Signature*, as 4/4 or 3/4

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- Measures are sometimes called **bars**
 - Probably based on the vertical bars in music notation.
 - Notice the time signature

Frederic Chopin

3/4 Andantino

Piano *p dolce*

con Pedale

Green Day

4/4

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Meter Notation

A Meter of 3-4 with Three Beats

A Meter of 6-8 with Six Beats

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We Get Much of Our Musical Scale from Pythagoras

- He reasoned music would be easiest to enjoy if it were based on straightforward mathematical ratios.
- We still use them today! Either he was right or we've simply gotten used to them.
- Our note pitches come from ratios:
 - Starting pitch x1.5 x1.33 x1.25 -etc

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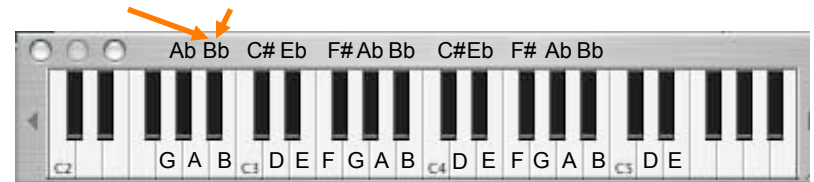
A Musical Scale

- For our purposes, think of a **scale** is a set of musical notes that **sound good together**.
 - So if we stick to the notes of a particular scale, **it will usually sound right**.
- Notes in C major scale: C D E F G A B C
 - Very common “**key**”
 - Falls on the white notes on a keyboard!
 - Easy to work with
 - Software can change it to other keys

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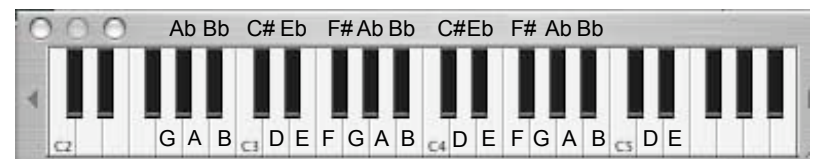
How Many Possible Notes Do We Have?

- **12** (then we repeat at double Hz)
 - **A Bb B C C# D Eb E F F# G Ab A**
- Looking at a piano keyboard
 - the sharps(#) and flats (b) are the black keys.
 - Bb and A# would be the same note.



Defining a Scale in Steps

- “**half step**” is the next note on a piano
 - A to Bb or Bb to B etc
- “**whole step**” skips a note on a piano
 - A to B or B to C# etc



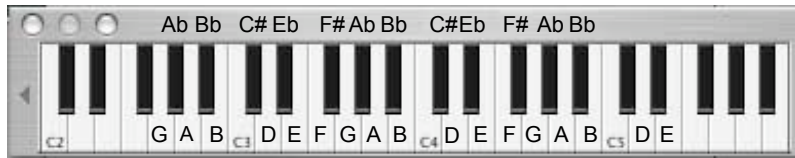
Sometimes a half-step is called a “semitone”

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C major Scale Pattern



Steps → W H W W H W W



Transposing Keys

- Use the software tools to move from C to any other major key.
 - Typical Example
 - Select notes in the sequencer editor
 - Choose transpose from the options at bottom
 - A “semitone” is another term for a half-step
 - So 2 half-steps would move the key from C to D
 - 2 more half-steps would move the key from D to E
 - 5 half-steps would move the key from C to F
 - 7 half-steps would move the key from C to G

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Music Structure

- Traditional music has an underlying shape, which constitutes its **form**.
 - Think of form as the way musical building blocks are **arranged**.
 - Building blocks might be **measures** (short) or **movements** (long sections) or just **verses** and **choruses**.
 - Classical music forms
 - “Ternary” ABA
 - “Arch” ABCBA

- Example: **blues** has several basic forms that are used over and over, based on measures.
 - also called “bars” –remember?
- 8-bar blues A A B A C B A C
- 12-bar blues A A A A B B A A D C A C
- Most of *our* pop music is based on similar blues forms.

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