Summary of “No Bull Music Theory For Guitarists” vol. 1 by James Shipway

Chapter 1: The Musical Alphabet and the Chromatic Scale

1. The Musical Alphabet

- The musical alphabet uses **seven letters**:
  A, B, C, D, E, F, G
  These are called the **natural notes**.
- Once you reach **G**, the cycle repeats back to **A**. This repeating loop is part of what we call **octaves**.

2. Sharps and Flats

- Between most natural notes is a note with a sharp (♯) or flat (♭).
  - A sharp (♯) raises a note by **one semitone** (half step).
  - A flat (♭) lowers a note by **one semitone**.
- Example:
  - A → A♯ is one semitone higher.
  - A♯ → A is one semitone lower (A♯ = B♭).
- **Enharmonic equivalents**:
  Some notes have **two names**, depending on context:
  - C♯ = D♭
  - F♯ = G♭
  - A♯ = B♭
    These are the **same pitch**, just notated differently.

3. No Sharp or Flat Between These Pairs

- There is **no note between** the following pairs:
  - **B & C**
  - **E & F**
- This can be remembered with the mnemonic:
  "Big Cats Eat Fish"
  → B–C and E–F are direct neighbors with **no sharp or flat between**.

4. The Chromatic Scale

- The **chromatic scale** includes **all 12 notes** of the musical alphabet, using sharps/flats where appropriate.
- If you start on **C**, the chromatic scale is:
  C, C♯/D♭, D, D♯/E♭, E, F, F♯/G♭, G, G♯/A♭, A, A♯/B♭, B, C
- This scale moves in **semitone steps**, meaning each note is **one fret apart** on the guitar.

Chapter 2: Semitones and Tones

1. Semitones (Half Steps)

- A **semitone** is the **smallest distance** between two notes in Western music.
- On the guitar, this is the distance of **1 fret**.
  Example:

    - From the 5th fret to the 6th fret on the same string is a semitone.
    - E to F is a semitone (no sharp/flat between them).
- In U.S. terminology, a semitone is also called a **half step**.

2. Tones (Whole Steps)

- A **tone** (also called a **whole step**) is equal to **2 semitones**.
- On the guitar, this is the distance of **2 frets**.
  Example:
    - From the 3rd fret to the 5th fret is a tone.
    - C to D is a tone (it skips over C♯/D♭).

3. Why This Matters

- Understanding semitones and tones is crucial for:
    - Building scales
    - Navigating the fretboard
    - Understanding chord shapes and transpositions
    - Analyzing intervals and melody movement

Chapter 3: The Major Scale

1. Major Scale Structure

- The **major scale** is a 7-note scale built using a specific sequence of tones and semitones.
- The **formula** is:
  Tone – Tone – Semitone – Tone – Tone – Tone – Semitone
  (Or: W – W – H – W – W – W – H, where W = whole step, H = half step)

2. Root Note (Tonic)

- The **starting note** of the scale is called the **root** or **tonic**.
- The formula must always start from this note and follow the same sequence.

3. Unchanging Pattern

- You **cannot change** the pattern of tones and semitones.
  If you do, the result is no longer a **major scale**—it becomes a different type of scale altogether.

4. Number of Major Scales

- There are **12 major scales**, one for each of the 12 notes in the chromatic scale.

5. C Major and Accidentals

- The **C major scale** contains **no sharps or flats**.
- **All other major scales** contain at least **one sharp or flat**.

6. Octave Completion

- When you play a major scale **ascending from the root**, the **eighth note** is the **same as the starting note**, but one **octave higher**.

Chapter 4: Triads and Power Chords

1. **Triads**
   • Triads are chords that contain 3 notes.

2. **Major Triad Formula**
   • A major triad is built using the 1st (root), 3rd, and 5th degrees of the major scale.
   • Formula: Root + 3rd + 5^{th}

3. **Minor Triad Formula**
   • A minor triad uses the root, a **flattened 3rd**, and the 5th.
   • Formula: Root + ♭3rd + 5^{th}

4. **Major vs. Minor Triads**
   • The **only difference** between major and minor triads is the 3rd.
   • A minor triad has a **flattened 3rd**, while the major triad does not.

5. **Triads in the D Major Scale**
   • The notes in the D major scale are: D, E, F♯, G, A, B, C♯
   • D major triad: D – F♯ – A
   • D minor triad: D – F – A

6. **Triads in the B♭ Major Scale**
   • The notes in the B♭ major scale are: B♭, C, D, E♭, F, G, A
   • B♭ major triad: B♭ – D – F
   • B♭ minor triad: B♭ – D♭ – F

7. **Power Chords ('5' Chords)**
   • Power chords are not triads—they contain **only 2 notes**: the root and the 5th.
   • Because they lack a 3rd or ♭3rd, they are **neither major nor minor**.
   • Power chords are named with a 5 after the root, as in Bb5, F#5, D5, etc.

Chapter 5: Intervals

1. **What Is an Interval**
   • An **interval** is a way of describing the **distance between two notes**, either by pitch (e.g., 3rd, 5th) or by fret spacing on the guitar.
   • Intervals are the building blocks of melodies and chords, and they help define the sound and structure of music.

2. **Major Scale Intervals**
   • To understand intervals, we start with a **major scale**, since interval names are based on it.
   • The **A major scale** is: A, B, C♯, D, E, F♯, G♯, A

3. **Intervals from A in Scale Order**
   • A to B = Major 2nd
   • A to C♯ = Major 3rd
   • A to D = Perfect 4th
   • A to E = Perfect 5th

• A to F♯ = Major 6th
• A to G♯ = Major 7th
• A to A = Octave (also called a Perfect 8th)

4. **How Interval Names Are Determined**
   • Interval names are based on two things:
   – The **number of letter names** between the root and the target note (A to C is a 3rd because it spans A–B–C)
   – The **number of semitones** between the two notes, which determines whether it's **major**, **minor**, **perfect**, **augmented**, or **diminished**
   • That's why A to C♯ is a **major 3rd** (3 letter steps, 4 semitones), while A to C (3 letter steps, 3 semitones) would be a **minor 3rd**.

5. **Interval Qualities: Major, Minor, Perfect, Augmented, Diminished**
   • **Major intervals** occur naturally in the major scale and include:
   – 2nd, 3rd, 6th, and 7th
   • **Minor intervals** are one semitone **lower** than their major counterparts:
   – Major 3rd → Minor 3rd (C to E = major; C to E♭ = minor)
   • **Perfect intervals** are stable and unaltered in both major and minor scales:
   – 1st (unison), 4th, 5th, and 8th (octave)
   • **Augmented intervals** are one semitone **higher** than major or perfect intervals:
   – Perfect 5th → Augmented 5th (C to G = perfect; C to G♯ = augmented)
   • **Diminished intervals** are one semitone **lower** than minor or perfect intervals:
   – Perfect 5th → Diminished 5th (C to G♭)
   – Minor 3rd → Diminished 3rd (C to E♭♭, rare but possible in theory)
   These labels describe both the **size** and **quality** of an interval. Learning to recognize them is essential for understanding chords, scales, and harmony.

Chapter 6: Chromatic Intervals

1. **What Is a Chromatic Interval**
   • A **chromatic interval** is an interval that has been **altered** from the standard version found in the major scale—either **sharpened (♯)** or **flattened (♭)**.
   • These intervals help describe the distances between notes that don't fit neatly within a major scale.

2. **Standard Intervals from the Major Scale**
   • In any major scale, the intervals above the root are:
   Major 2nd, Major 3rd, Perfect 4th, Perfect 5th, Major 6th, Major 7th, and Octave
   • These are called **diatonic intervals**.

3. **Chromatic Alterations and Qualities**
   • When you **flatten** a major interval (except the 5th), it becomes a **minor** interval:
   – Major 3rd → Minor 3rd
   – Major 6th → Minor 6th
   – Major 7th → Minor 7th
   – Major 2nd → Minor 2nd
   • The **Perfect 5th**, when flattened, becomes a **Diminished 5th (♭5)**.

• The **Perfect 5th**, when sharpened, becomes an **Augmented 5th (♯5)**.
• The **Perfect 4th**, when sharpened, becomes an **Augmented 4th (♯4)**.

4. **Chromatic Intervals from the C Major Scale**
   • C major scale: C, D, E, F, G, A, B
   • Chromatic alterations from C:
   ♭2nd = D♭ → Minor 2nd
   ♯2nd = D♯ → Augmented 2nd (rare)
   ♭3rd = E♭ → Minor 3rd
   ♯3rd = E♯ → Augmented 3rd (very rare, enharmonic to F)
   ♯4th = F♯ → Augmented 4th
   ♭5th = G♭ → Diminished 5th
   ♯5th = G♯ → Augmented 5th
   ♭6th = A♭ → Minor 6th
   ♯6th = A♯ → Augmented 6th
   ♭7th = B♭ → Minor 7th
   ♯7th = B♯ → Augmented 7th (enharmonic to C)

5. **Why We Use Names Like B♯ or F♭**
   • Notes like **B♯** or **F♭** might seem unnecessary (since B♯ = C, and F♭ = E), but they are used to preserve **correct spelling** in harmonic or melodic contexts.
   • For example, in the key of **C♯ major**, the 7th note is **B♯**, not C, because you must include one of every letter name in the scale.
   • These naming conventions help musicians understand the **function** of a note in a given key or chord.

Chapter 7: Keys and Chord Families

1. **What Is a Key?**
   • A **key** tells you what **scale** a song is based on.
   • It defines the set of notes that most of the song's **melody, bassline, and chords** will come from.

2. **Key of A Major Example**
   • If a song is in the **key of A major**, then the melody, chords, and bassline will primarily use notes from the **A major scale**.
   • The A major scale: A, B, C♯, D, E, F♯, G♯

3. **Number of Major Keys**
   • There are **12 major keys**, one for each note in the chromatic scale.
   • Each has a corresponding major scale and chord family.

4. **Chord Families**
   • Each key has a **chord family** made up of **seven chords**, one built on each scale degree.
   • These chords are usually formed by stacking **thirds** from the notes of the scale.

5. **Parent Scale**
   • The scale that gives rise to these chords is called the **parent scale**.
   • It provides the tonal foundation for both **melodic** and **harmonic** content in the key.

Chapter 8: Chords in a Key

1. **Building Triads from a Major Scale**
   • To find the chords in a key, we build a **triad** (3-note chord) on **each note of the major scale** by stacking **thirds** above each scale degree.
   • Let's use the **C major scale**:
   C – D – E – F – G – A – B
   We'll build a triad on each note using only notes from the **C major scale**.

   Triads in the Key of C Major
   • **Chord I (C)**:
   C – E – G → C major
   • **Chord II (D)**:
   D – F – A → D minor (D to F is a minor 3rd)
   • **Chord III (E)**:
   E – G – B → E minor
   • **Chord IV (F)**:
   F – A – C → F major
   • **Chord V (G)**:
   G – B – D → G major
   • **Chord VI (A)**:
   A – C – E → A minor
   • **Chord VII (B)**:
   B – D – F → B diminished (B to D is a minor 3rd, D to F is a minor 3rd)

2. **The Harmonized Major Scale Formula**
   • The chord qualities you get when harmonizing **any** major scale follow this same pattern:
   I is Major – II is Minor – III is Minor – IV is Major – V is Major – VI is Minor – VII is Diminished
   • This formula works for **all 12 major keys**, not just C major.

3. **Relative Minor**
   • The **VI chord** (6th degree) in a major key is called the **relative minor**.
   • It shares the **same key signature** and **notes** as its major key counterpart, but it starts on a **different tonic**.
   • In **C major**, the VI chord is **A minor**.
   → This means **A minor** is the **relative minor** of **C major**.
   → Likewise, **C major** is the **relative major** of **A minor**.
   • On guitar, an easy way to find the relative minor is by going **3 frets down** from the root. For example, play a g note at the 6th string, 3rd fret, then go down 3 frets to discover that you're on the note e, the open 6th string. This tells you that Em is the relative minor of G.

Chapter 9: Chord Progressions and Roman Numerals

1. **What Is a Chord Progression?**
   • A **chord progression** is a sequence of chords played in a particular order.
   • Progressions give a song its harmonic movement and emotional contour.
   • Common progressions often repeat or cycle, and they form the foundation of countless songs.

2. **Roman Numerals in Music**
   • Chords in a progression are labeled using **Roman numerals** based on their position in the key.
   • Uppercase numerals = **major chords** (I, IV, V)
   • Lowercase numerals = **minor chords** (ii, iii, vi)
   • Diminished chords use a **° symbol** (vii°)

3. **The I–IV–V Progression**
   • One of the most common progressions in music.
   • Example: In **G major**, I–IV–V = G – C – D
   • This progression creates a strong sense of resolution, especially when it ends on **I**.

4. **The V–I Movement (Perfect Cadence)**
   • A **V–I** movement is called a **perfect cadence**.
   • It gives a strong, conclusive feel, signaling a musical "full stop" or return home.
   • Example: In C major, G (V) → C (I)

5. **Transposing Progressions to New Keys**
   • Once you know a chord progression in Roman numerals, you can **transpose** it to any key by applying the same Roman numerals to a new scale.
   • Example:
   Progression: I–vi–IV–V
   • In G major: G – Em – C – D
   • In E major: E – C♯m – A – B

6. **Using a Chord Chart**
   • A **chord/key chart** shows you the chords that correspond to each degree in every major key.
   • It's a handy tool for quickly transposing progressions and identifying Roman numerals.

Chapter 10: Pentatonic and Blues Scales

1. **What Is a Pentatonic Scale?**
   • A **pentatonic scale** is a scale made up of **five notes**.
   • The word "penta" means five, and "tonic" refers to tones (notes).

2. **The Major Pentatonic Scale**
   • The **major pentatonic** is built from the **major scale**, but with the **4th and 7th notes removed**.
   • The interval formula is: **1 – 2 – 3 – 5 – 6**
   • Example: **G major scale** = G, A, B, C, D, E, F♯
   → **G major pentatonic** = G, A, B, D, E
   • It is built on a **major triad** (1–3–5) and is often used for **melodies, licks, and solos in major keys**.

3. **The Minor Pentatonic Scale**
   • The **minor pentatonic** is a 5-note version of the **natural minor scale**, omitting the **2nd and ♭6th** degrees.
   • The interval formula is: **1 – ♭3 – 4 – 5 – ♭7**

- It is built on a **minor triad** and is used for **minor keys** as well as **12-bar blues**.
- Example: **C minor pentatonic** = C, E♭, F, G, B♭

4. **F Major Pentatonic Example**
   - **F major scale** = F, G, A, B♭, C, D, E
   - **F major pentatonic** = F, G, A, C, D

5. **The Blues Scale**
   - The **blues scale** is very similar to the minor pentatonic, but adds a single extra note: the **♭5th**.
   - Formula: **1 – ♭3 – 4 – ♭5 – 5 – ♭7**
   - This added "blue note" creates the **bluesy, expressive sound** that defines the style.

Chapter 11: The Natural Minor Scale

1. **What Is the Natural Minor Scale?**
   - The **natural minor scale** is a 7-note scale that shares the **same notes** as its relative major, but starts on a different note (the 6th degree of the major scale).
   - It is often used to create **darker, more emotional moods** in music.

2. **Interval Formula**
   - The natural minor scale has the following formula of intervals:
   Root – 2nd – ♭3rd – 4th – 5th – ♭6th – ♭7th
   - The three altered degrees compared to the major scale are the **♭3rd, ♭6th, and ♭7th**.

3. **Major vs. Minor Example: A Major vs. A Minor**
   - A major scale: A – B – C♯ – D – E – F♯ – G♯
   - A natural minor scale: A – B – C – D – E – F – G
   → Notice the **3rd, 6th, and 7th** are **flattened** in the minor scale.

4. **C Natural Minor Example**
   - C major: C – D – E – F – G – A – B
   - C natural minor: C – D – E♭ – F – G – A♭ – B♭

5. **E Natural Minor Example**
   - E major: E – F♯ – G♯ – A – B – C♯ – D♯
   - E natural minor: E – F♯ – G – A – B – C – D

6. **Mode Name**
   - The natural minor scale is also called the **Aeolian mode**.
   - It is the **6th mode** of the major scale system.

7. **Relationship to the Minor Pentatonic**
   - The **minor pentatonic scale** is a simplified version of the natural minor scale.
   - It uses only 5 of the 7 notes:
   1 – ♭3 – 4 – 5 – ♭7
   - In other words, it **leaves out the 2nd and ♭6th** from the natural minor scale.

Chapter 12: Minor Key Basics

1. **Mood of Minor Keys**
   • Minor keys tend to sound more **sad**, **dark**, or **emotional**, while major keys often sound **bright**, **happy**, or **uplifting**. This difference is due to the ♭3rd found in the minor scale.

2. **Relative Minor and Chord Families**
   • Each major key has a **relative minor**—the **vi chord** in the major key becomes the **i chord** in the minor key.
   • The remaining chords in the scale stay the same but are **renumbered** using the minor key as the new tonic.

3. **Chord Types in a Minor Key**
   • Just like major keys, minor keys have **7 chords** in their chord family. These are derived from the **natural minor scale**. The chord qualities follow this pattern:

Scale Degree	Chord Quality
i	minor
ii°	diminished
III	major
iv	minor
v	minor *(sometimes major)*
VI	major
VII	major *(sometimes altered)*

   - i, iv, and v = **minor;** III, VI, VII = **major;** ii = **diminished**

4. **Example: B Minor from D Major**
   • D major scale chords: D, Em, F♯m, G, A, Bm, C♯dim
   • B minor is the **relative minor** (6th degree), so the B minor chord family is:
   Bm, C♯dim, D, Em, F♯m, G, A

5. **Common Variations**
   • In some songs, chords like **iv** or **v** are made **major** to create tension or variety.
   • This is especially common in **minor key cadences**, where **V** is changed to major (e.g., E major instead of E minor in A minor).

6. **Soloing in Minor Keys**
   • When improvising in a minor key, you can use:
   - The **natural minor scale**
   - The **minor pentatonic scale**
   - The **blues scale**

7. **Chord Progression Analysis Example**
   • Chord progression: C♯m – E – A – B
   • In the key of **C♯ minor**, the Roman numerals are:
   - C♯m = I; E = III; A = VII; B = VII

You can solo over this progression using either the **C♯ natural minor scale** or the **C♯ minor pentatonic scale**.