Sharps, Flats, and Enharmonic Spelling

A context-rich lesson showing why one sounding pitch can have two names—and why choosing the right name still matters.

Find the Note **TEACHER PLAN + STUDENT WORKSHEET**

At a glance

Grade band	Grouping	Prior knowledge	Materials
Grades 6–12	Whole class, teams, individual	Whole/half steps; basic scales	Keyboard or fingering chart, staff paper, Find the Note

Driving question: If A-sharp and B-flat can sound the same, why do musicians need both names?

Success criteria:

- Explain the effect of sharp, flat, and natural signs.
- Define enharmonic equivalence in the context of equal temperament.
- Produce and notate common enharmonic pairs.
- Select a spelling that makes the pitch's musical role clear.

Launch: one key, two labels (7 minutes)

Show one black piano key between A and B, or one fingering that can be named A-sharp/B-flat. Ask students to vote:

- It is A-sharp.
- It is B-flat.
- It depends.

Do not resolve the vote yet. Play the pitch and record its frequency. Write both names beside the same measurement.

Teach: accidentals change a letter (12 minutes)

A **sharp** raises a named pitch by one semitone. A **flat** lowers it by one semitone. A **natural** cancels a sharp or flat for the relevant context.

In twelve-tone equal temperament, these pairs normally share one key, fingering, or frequency:

Sharp spelling	Flat spelling
C-sharp	D-flat

Sharp spelling	Flat spelling
D-sharp	E-flat
F-sharp	G-flat
G-sharp	A-flat
A-sharp	B-flat

They are **enharmonic equivalents**: same sounding pitch in this tuning system, different notation and musical meaning.

Why spelling matters

Build a B-flat major scale: B-flat, C, D, E-flat, F, G, A, B-flat. Each letter appears once. Replace B-flat with A-sharp and ask what becomes harder to see. The wrong spelling hides the scale's structure and duplicates the letter A.

> Enharmonic names are like "their," "there," and "they're": they may sound alike, but context determines which spelling communicates the intended meaning.

Investigation: sound stays, spelling changes (15 minutes)

1. Select a stable pitch such as B-flat/A-sharp.
2. Predict the note name and play it.
3. Record pitch and frequency.
4. Change the detector's accidental preference when available, or label the same reading both ways.
5. Play again without changing fingering.
6. Compare what changed in the notation and what remained constant in the sound.

Students complete:

Fingering/key	Sharp name	Flat name	Frequency	Same sound?
1				
2				
3				

Team challenge: musical spelling court (15 minutes)

Assign each team one case. Teams must defend the clearer spelling.

- A raised fourth scale degree in G major: C-sharp or D-flat?
- The fourth scale degree in F major: A-sharp or B-flat?
- A descending chromatic line A–A-flat–G: G-sharp or A-flat?

- A D-major chord: D–F-sharp–A or D–G-flat–A?

Require two pieces of evidence: alphabetical structure and musical direction or harmony.

Differentiate

Support: Use keyboard diagrams and only the five common black-key pairs.

On level: Choose spellings in familiar major scales.

Extend: Explore B-sharp/C, E-sharp/F, C-flat/B, and F-flat/E; discuss why those spellings appear even though the keyboard has no black key between the letters.

Misconceptions to catch

- Sharp means a black key and flat means a different black key.
- Enharmonic means spelling never matters.
- Every sharp has a flat name using a black key.
- A detector can infer the correct harmonic spelling from an isolated pitch. Context is required.

Printable student page

Build the concept

1. A sharp changes a named pitch by _____. A flat changes it by _____.
2. Define enharmonic equivalents.
3. Complete the pairs: C-sharp = ___; E-flat = ___; G-sharp = ___; B-flat = ___.
4. What musical information can the spelling communicate even when the sound is unchanged?

Make the case

5. In F major, choose A-sharp or B-flat. Defend your answer.
6. In a D-major chord, choose F-sharp or G-flat. Defend your answer.
7. In the descending line B–B-flat–A, choose A-sharp or B-flat. Defend your answer.

Detector evidence

8. Measure one enharmonic pitch three times. What stays stable? What can the display label differently?

Answer key and teacher look-fors

1 up one semitone; down one semitone. 2. Different names for the same sounding pitch in the tuning context. 3. D-flat, D-sharp, A-flat, A-sharp.

2 B-flat preserves one of each letter in the scale. 6. F-sharp creates the chord tones D–F-sharp–A in stacked thirds. 7. B-flat shows the lowered form of B and preserves descending motion. Strong answers distinguish acoustic sameness from notational function.