



## Lesson #1: Enharmonics

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### OVERVIEW

A lesson for students to learn to identify and decode pitches with more than one enharmonic label.

### LEARNING GOAL

Students will:

1. define enharmonics.
2. provide an alternative enharmonic label for a given pitch.
3. understand the concept of a semi-tone or half step, including a natural half step.

### DESCRIPTION OF LESSON

In *Deep Dish*, composer James Stephenson uses the chromatic scale starting on concert Ab as the pitch set used to create the piece. The performers need to correctly perform pitches that occur with more than one enharmonic label. The purpose of this lesson is for students to correctly decode the notes in their parts regardless of the pitches' enharmonic labels.

### RESOURCES & MATERIALS

1. Enharmonics Information handout or [Powerpoint](#) presentation.
2. Assignment sheet.

### PROCESS

1. Read through the Enharmonics Information handout together. A link to a [Powerpoint](#) presentation of the material is also provided and may be used in place of the print version.
2. Students complete the Enharmonics Assignment sheet.

# ENHARMONICS ASSIGNMENT

NAME: \_\_\_\_\_

Write the name of the enharmonic equivalent for each of the following pitches.

1. **E<sub>b</sub>** = \_\_\_\_\_

2. **F<sup>#</sup>** = \_\_\_\_\_

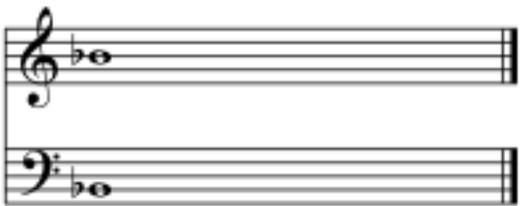
3. **D<sub>b</sub>** = \_\_\_\_\_

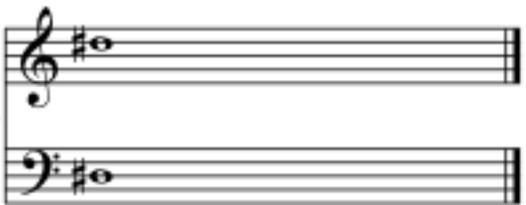
4. **A<sup>#</sup>** = \_\_\_\_\_

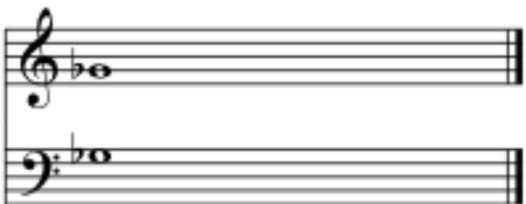
5. **D<sub>b</sub>** = \_\_\_\_\_

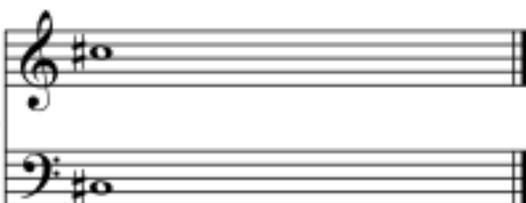
For the following examples, next to each given note, rewrite the note as its enharmonic equivalent. You only need to do the examples that match the clef of the instrument you play (e.g. trombone players only do the bass clef examples; flute players only do the treble clef examples.)

6. 

7. 

8. 

9. 

10. 

## STUDENT RESOURCE

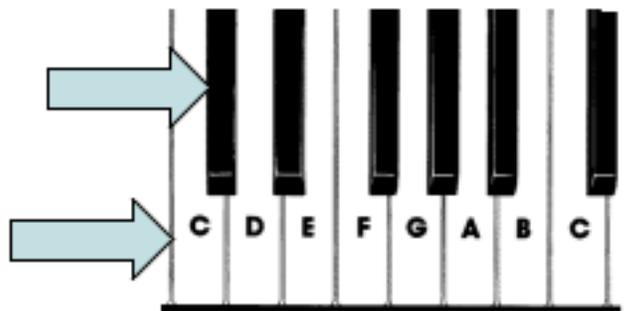
# THE WONDERFUL WORLD OF ENHARMONICS

## WHAT IS AN ENHARMONIC?

The term enharmonic means that a pitch has more than one possible name. Every flat note (such as B $\flat$ ) also has a sharp name (in this case, A $\sharp$ ). Every sharp note (such as D $\sharp$ ) also has a flat name (in this case, E $\flat$ ).

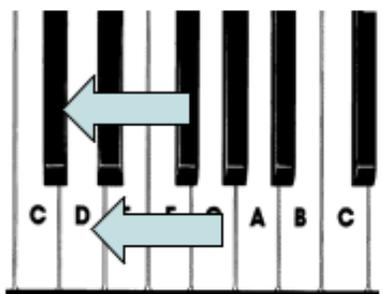
## HALF STEPS

First you must understand half steps. Look at this piano keyboard.

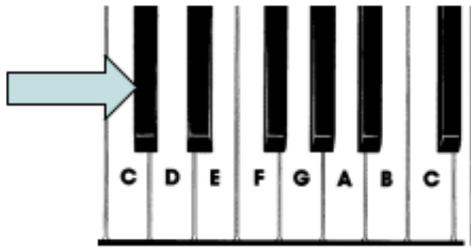


Notice that some of the white keys have a black key between them and some don't. When you move from a white key to a black that is right next to it, the distance between the sounds of those two keys is a half step. In this example, the arrows point to the C key and then to the black key for the note that is a half step higher.

**A half step is the closest together any two sounds can be on a piano or on any band instrument.**



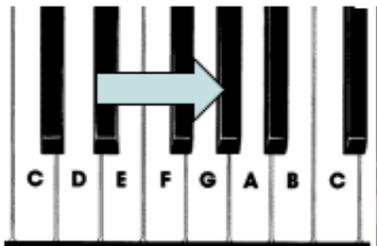
On the keyboard to the left, the arrows are pointing at the D key and the black key a half step **LOWER** than the D.



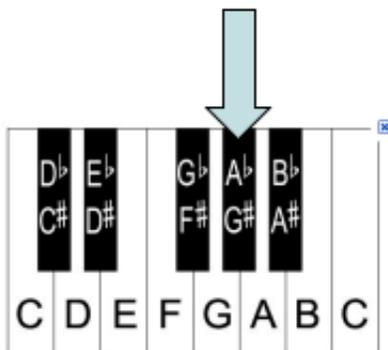
Notice that there is only one black key between the C and the D key.

## SHARPS AND FLATS

The word sharp means “a half step higher.” The word flat means “a half step lower.” In other words, G# refers to the pitch that is a half step higher than G. An Ab refers to the pitch that is a half step lower than A.



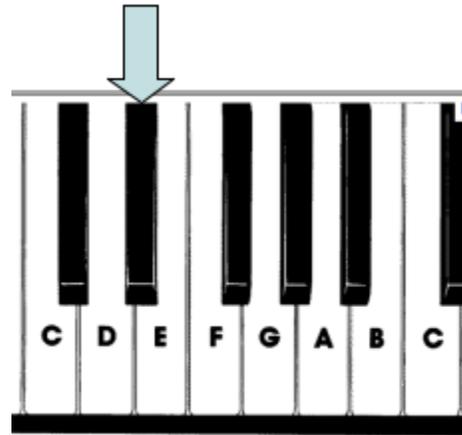
The arrow points to a G# on a piano. Notice that it is pointing to the black key that is a half step **HIGHER** than the G key. Look again and notice that here the arrow is also pointing to the Ab, the key that is a half step **LOWER** than the A key.



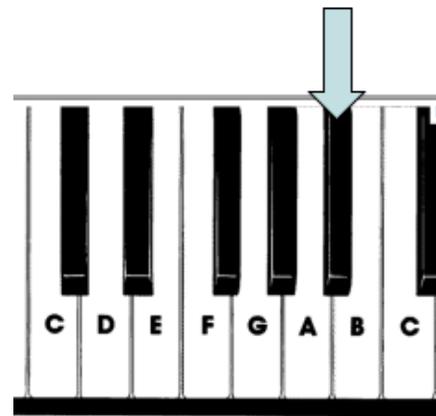
The black key that is a half step higher than G (called G#) is the same key that is a half step lower than A (called Ab). Therefore the enharmonic name for G# is Ab and vice versa. In other words, G# and Ab are two different names for the same pitch. They can be described as being **enharmonic equivalents**.

TIME TO PROVE THAT YOU ARE AN ENHARMONIC MASTER!

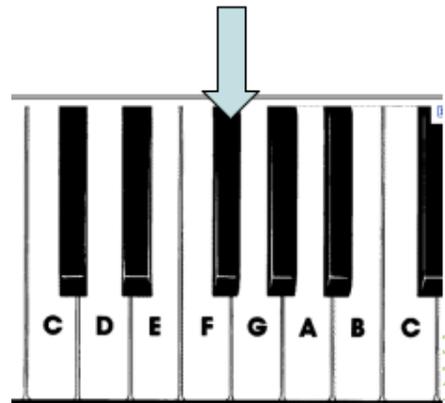
What are the two possible names for this note?



How about this one?



One more!



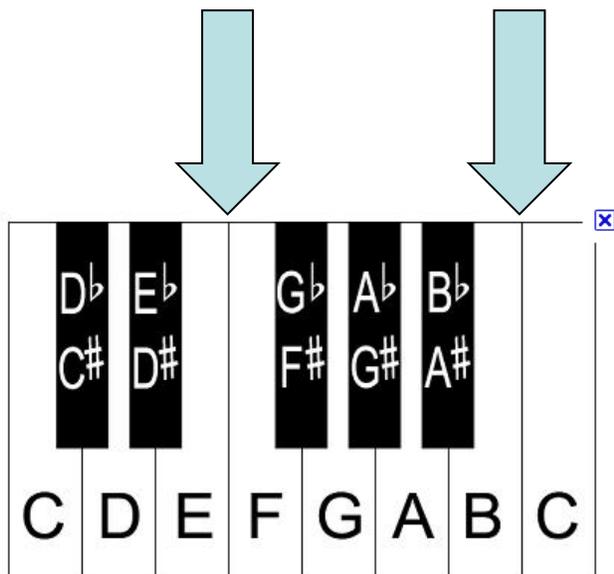
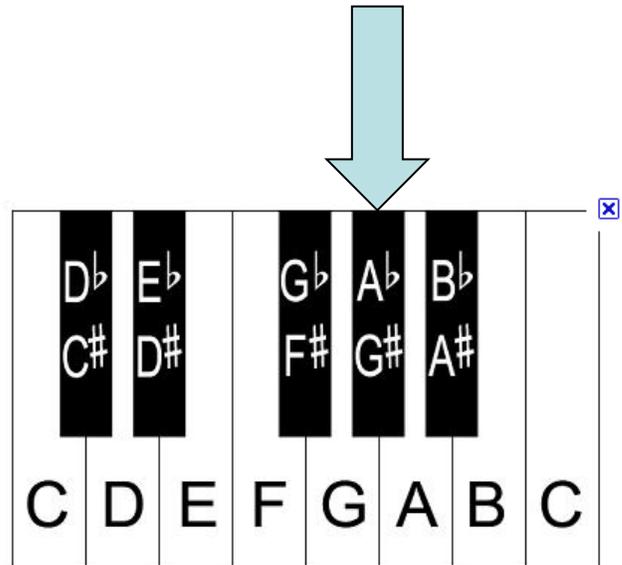
Now cover up the pictures of keyboards and see if you can figure out the other names for these pitches: Db, D#, Eb, A#, Gb, G#. How many did you get right?



## PART 2: MORE ADVANCED - NATURAL HALF STEPS & ENHARMONICS

### A review of what we have already learned:

- ✓ A half step is the closest two sounds can be on a piano or band instrument.
- ✓ The distance between the white key on a piano and the black key next to it is a half step.
- ✓ Sharp refers to a half step higher and flat refers to a half step lower.
- ✓ Enharmonic equivalents are the two different names a pitch may be called, for example, G# and Ab are two different names for the same pitch. G# refers to a half step higher than G and Ab refers to a half step lower than A.



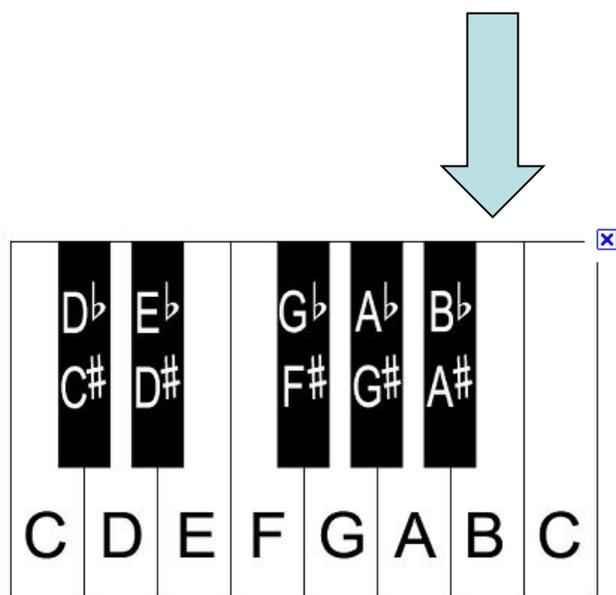
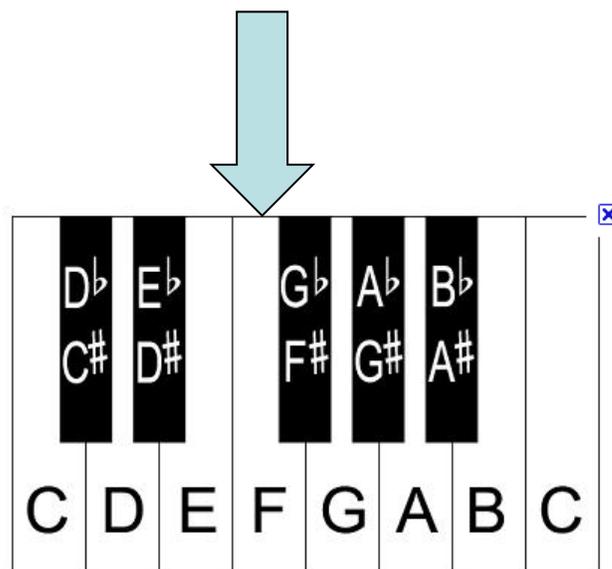
Notice on the keyboard pictured to the left that within an octave there are two places on the piano where there are no black keys between two consecutive white keys (between E natural and F natural and also between B natural and C natural.) If you played these notes, you would hear that the sounds are also a half step apart. The distance between the consecutive notes in each of these pairs is called a natural half step.

Here is where things get a little more complicated. Notice on the keyboard to the right that the arrow is pointing to an F natural. The F natural is a half step higher than E natural. If you wanted to use a name for F that referred to the fact that it is a half step higher than E, what could you call it?

**The answer would be E#!**

**That is because E# means half step higher than E.**

**Therefore F natural = E#.**



In the keyboard below, the arrow is pointing to B natural. It is a half step lower than C natural. What is another name you can call B natural that describes it as being a half step lower than C natural?

**The answer would be Cb!**

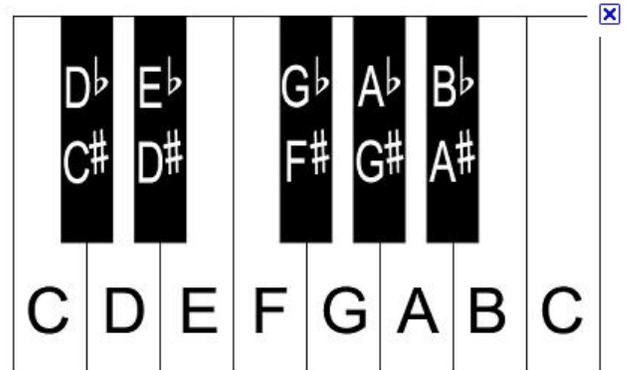
**That is because Cb means half step lower than C.**

**Therefore B natural = Cb.**

So looking at the keyboard to the right as a guide, fill in the following blanks:

**Fb** = \_\_\_\_\_?

**B#** = \_\_\_\_\_?



If you were able to correctly fill in the blanks, **congratulations!**

You understand how enharmonics apply to natural half steps!

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