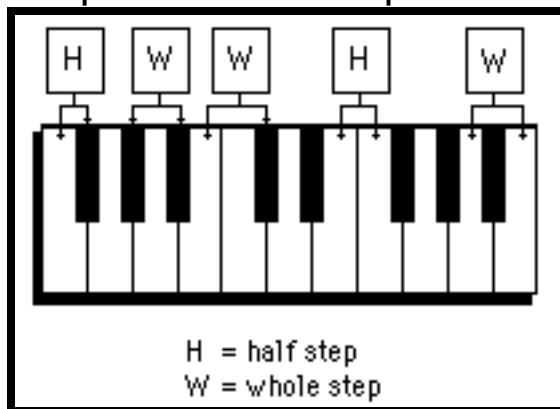


## Chapter 4. Major Scales and the Circle of Fifths

In this chapter you will:

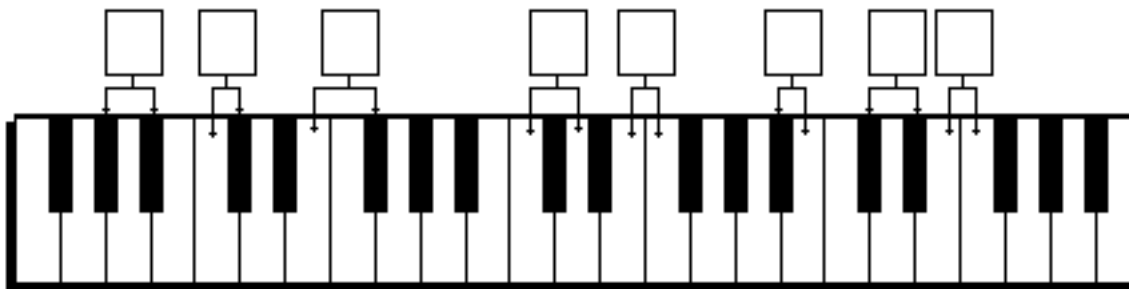
1. Identify half steps and whole steps on the keyboard
2. Identify half steps and whole steps on the staff
3. Write half steps and whole steps on the staff
4. Mark the notes of major scales on the keyboard
5. Mark the notes of major scales on a keyboard in the circle of fifths
6. Write phrases to memorize keynotes in the circle of fifths
7. Fill in the keys, in order, on the circle of fifths.
8. Write major scales on the staff
9. Write the sharp scales on a staff in the circle of fifths
10. Write the flat scales on a staff in the circle of fifths

### 4.1 Identify half steps and whole steps on the keyboard

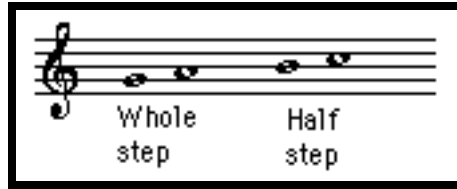


- A half step is the closest possible distance between two notes. There can be no notes in between two notes which are separated by a half step.
- A whole step is a distance between two notes such that there is one and only one note between those two notes. A whole step equals two half steps.

*IDENTIFY* the distances on the keyboard below as “H” for half step or “W” for whole step.



4.2 Identify half steps and whole steps on the staff



- The staff by itself does not show half step and whole step relationships. See the illustration above. To find half steps and whole steps on the staff, refer to the keyboard.

1. *FILL IN* the letter names for the white keys on this keyboard.



2. *IDENTIFY* the pairs of notes as separated by either a half step (H), or a whole step (W), or as being enharmonic equivalents (E).

Example

The example shows two staves. The top staff is in treble clef and contains the following notes: G4, A4, B4, C5, D5, E5, F5, G5. The bottom staff is in bass clef and contains the following notes: G3, F3, E3, D3, C3, B2, A2, G2. Below each staff are five blank lines for identifying intervals between adjacent notes. The first interval on the top staff is labeled 'W'.

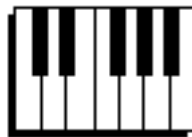
### 4.3 Write half steps and whole steps on the staff

- A sharp or flat applies to the note which follows it AND to all the following notes of the same letter name in the measure.

1. IDENTIFY the bracketed pairs of notes as separated by either a half step (H), or a whole step (W). Refer to the keyboard.

A musical staff in bass clef with the following notes: G2, A2, B2, C3, D3, E3, F#3, G#3, A3, B3, C4. Brackets connect the following pairs of notes: (G2, A2), (A2, B2), (B2, C3), (C3, D3), (D3, E3), (E3, F#3), (F#3, G#3), (G#3, A3), (A3, B3), (B3, C4). A box labeled "still sharp" points to the F#3 note.

Joy to the world, the Lord is come. Let earth re-ceive her king.



2. WRITE notes which are a half step up or down, or a whole step up or down from the given note.

Example

Two musical staves showing interval examples. The first staff is in treble clef and the second in bass clef. Labels below the notes indicate the interval between the given note and the next note.

half step up    half step down    whole step up    whole step down    half step up

half step down    whole step up    whole step down    half step up    half step up

2. GO ONLINE to [www.gmajormusictheory.org](http://www.gmajormusictheory.org)
  - a. CLICK "Music Fundamentals"
  - b. CLICK in the "Virtual Flash Cards" column:
    - 4.1 Half, whole or enharmonic?
  - c. PRACTICE your distances between notes.

4.4 Mark the notes of major scales on the keyboard

J. S. Bach: Minuet in G

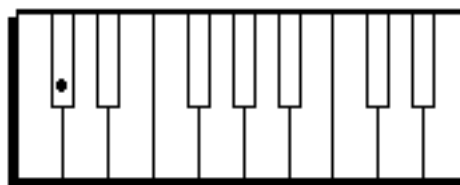
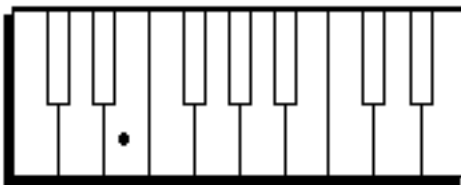
W W H W W W H

W = whole step  
H = half step

- A key note is the most important note of a piece of music. Pieces almost always end on the key note.
- If eight notes of a piece are arranged in order without skipping lines or spaces and if the first note is the key note, then the notes form a scale.
- A major scale is eight note in ascending order which are separated from each other according to this pattern:

1	2	3	4	5	6	7	8
whole	whole	half	whole	whole	whole	whole	half
step	step	step	step	step	step	step	step

*DRAW* dots on the following keyboards for each note of a major scale. The key note is given.



4.5 page 1 Mark scale degrees on a keyboard in the circle of fifths  
TURN THE BOOK (OR THE NEXT PAGE) UPSIDE-DOWN!

- Each note of a scale is called a scale degree. Scale degree 1 is the key note.
- If scales are written clockwise on a circular keyboard or staff, and if the keynote of each scale begins on scale degree 5 of the previous scale, then the keynotes follow an order called the circle of fifths.

---

*DRAW* dots for the notes of every scale on the circular keyboard on the next page. The C major scale has already been marked where it says “START HERE.” Notice that if the key note is C, then the major scale pattern

1 2 3 4 5 6 7 8  
W W H W W W H

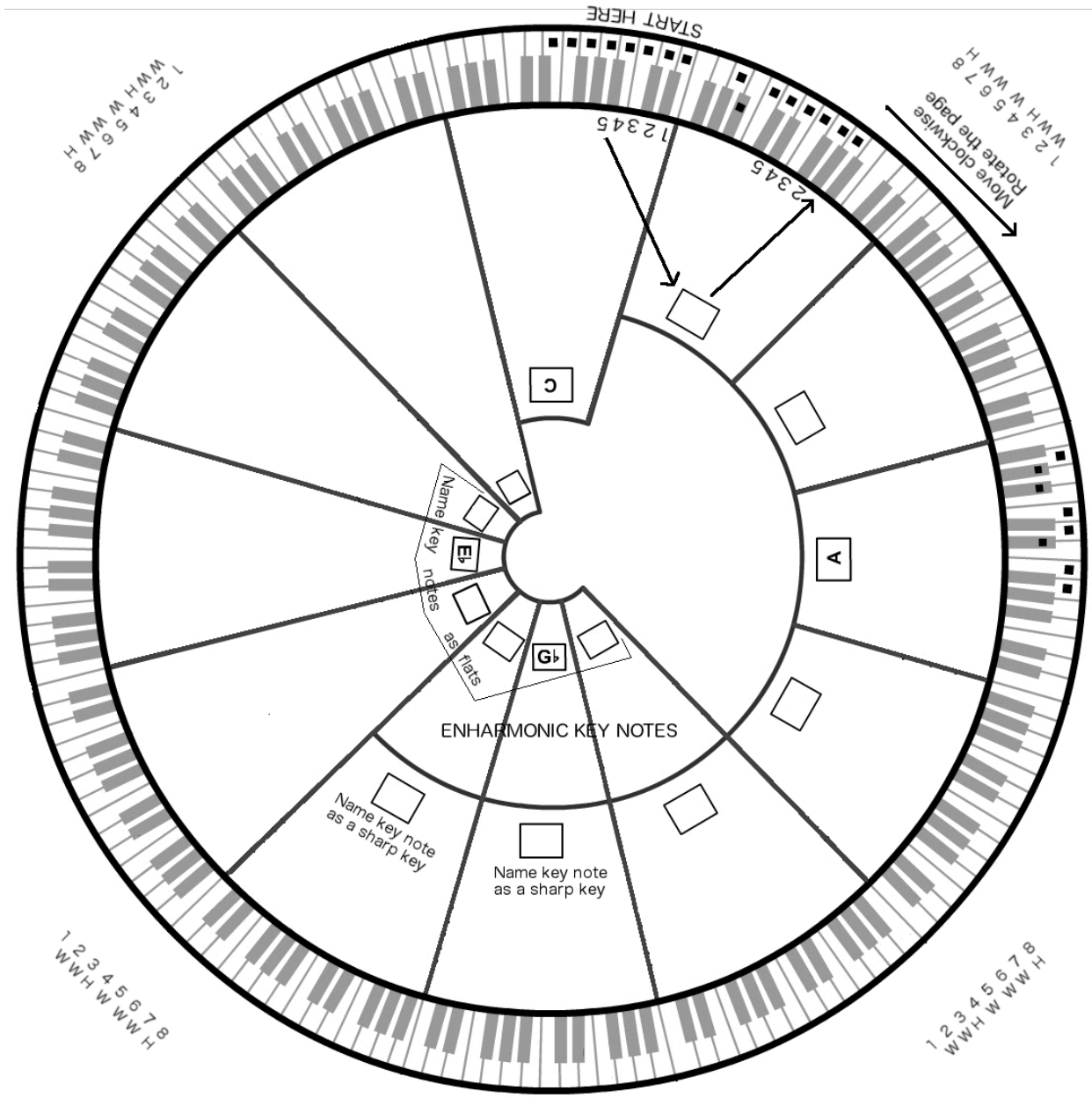
results in all white keys.

1. The key note of the next scale to the left (be sure you have turned the page upside-down) is scale degree 5 of the C major scale. *WRITE* the letter name for this note in the box in the next section to the left. Its scale has also already been filled in.
2. *COUNT* to the fifth note in the new scale, *WRITE* its letter name in the next box and *MARK* the notes of its scale with dots on the keyboard. *CHECK* to see that the first note is the same as the last.
3. *PROCEED* in this way until you have gone all the way around the circle and arrived at the C scale again. *ROTATE* the book as you work. When you reach sections of the circle with two boxes for key notes, *FILL IN* enharmonically equivalent key notes.

Incredibly all 12 different notes on the keyboard will have been used once and only once as key notes, and the original key note, C, will be the fifth note of the previous scale. In this way you will have completed a true circle—the circle of fifths.

4.5 page 2

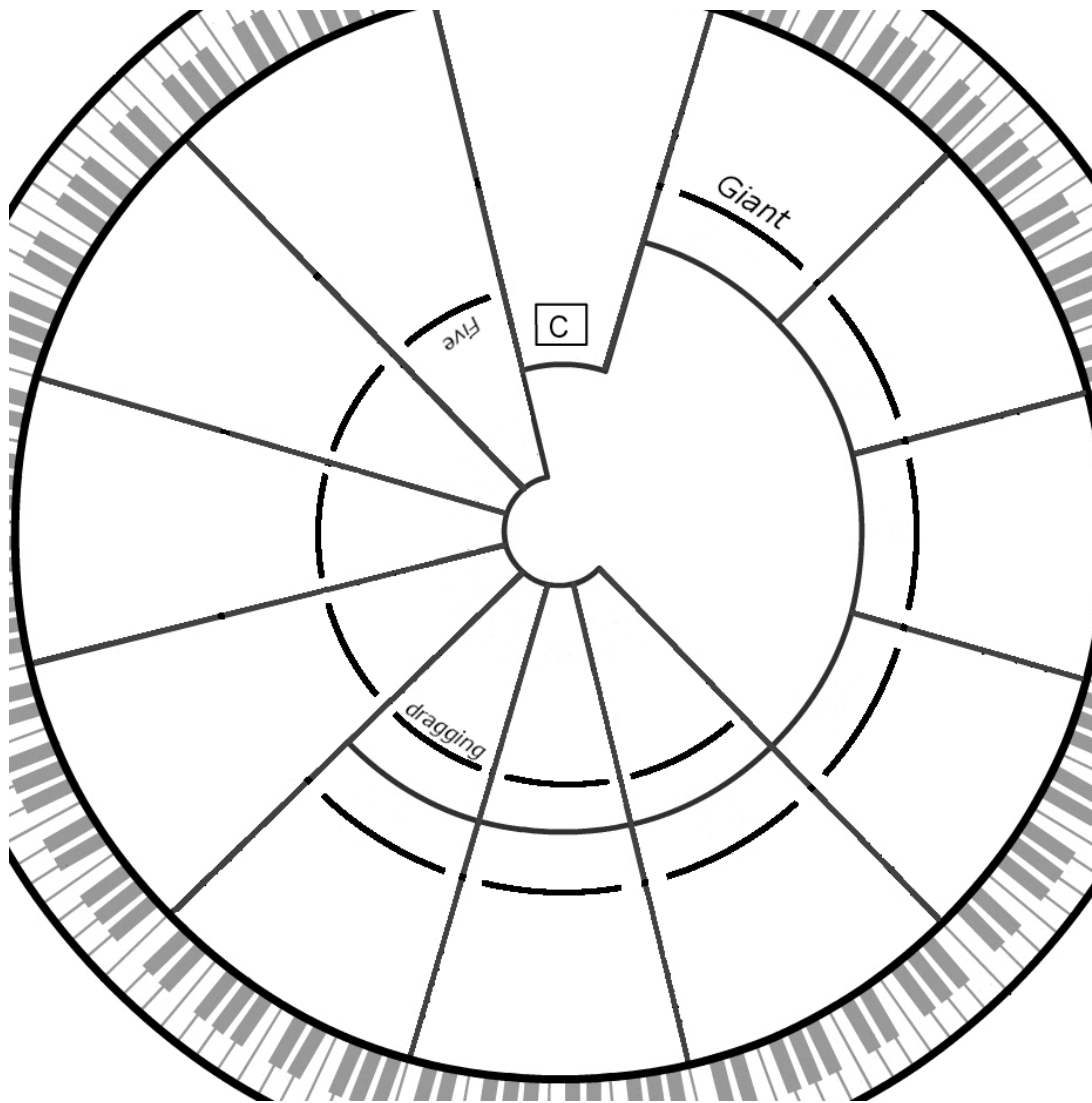
TURN THE PAGE UPSIDE-DOWN!



#### 4.6 Write phrases to memorize keynotes in the circle of fifths

- A piece based on a certain scale and key note is said to be in a certain key. The terms “key” and “key note” are often interchangeable.
- Memorize the order of keys in the circle of fifths by remembering the two phrases below. The first letter of each word is the letter of a key.

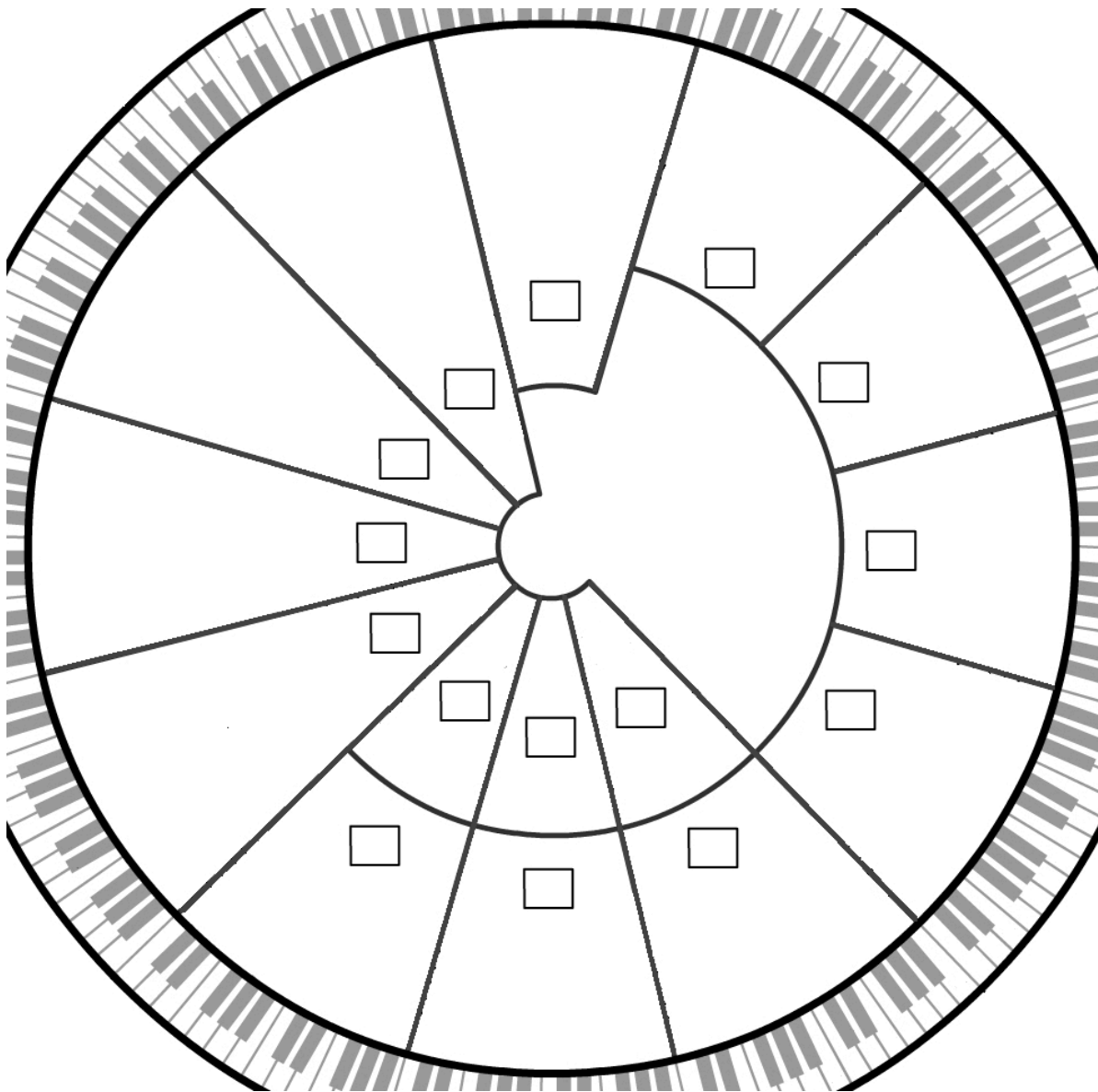
1. *COMPLETE* the phrases, “Giant Dogs Always Eat Before Furry Cats” and  
“Five Big Elephants Are Drugging Garbage Cans”  
which begin in the top right and left portions of the circle below.  
*DO NOT DRAW* dots on the keyboard.



### 4.7 Fill in the keys, in order, on the circle of fifths

*REWRITE* the keys in the circle of fifths as you did on worksheet 4.5. This time use the phrases on worksheet 4.6 to help. Also remember that many keys have flats or sharps next to them.

*DO NOT DRAW* dots on the keyboard.





4.8 Write major scales on the staff

Writing a D $\flat$  Major scale

Step 1

Step 2

Step 3

Step 4

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

W W H W W W H

W W H W W W H

- Given a key note, be able to write its major scale on a staff.

- DRAW* eight note heads in ascending order beginning with the key note. Do not skip any lines or spaces. Leave enough room between notes to insert sharps or flats.
  - CHECK* that the first note has the same letter name as the last.
  - If the key note has a sharp or flat, *DRAW* a sharp or flat to the left of the first and last notes.
- WRITE* the numbers 1 to 8 below the notes.
- WRITE* W's and H's between the numbers in the pattern of whole and half steps which you have learned for major scales.
- DRAW* a sharp or flat in front of each note, if needed, to correspond to the pattern of whole and half steps between the numbers.

WRITE these scales.

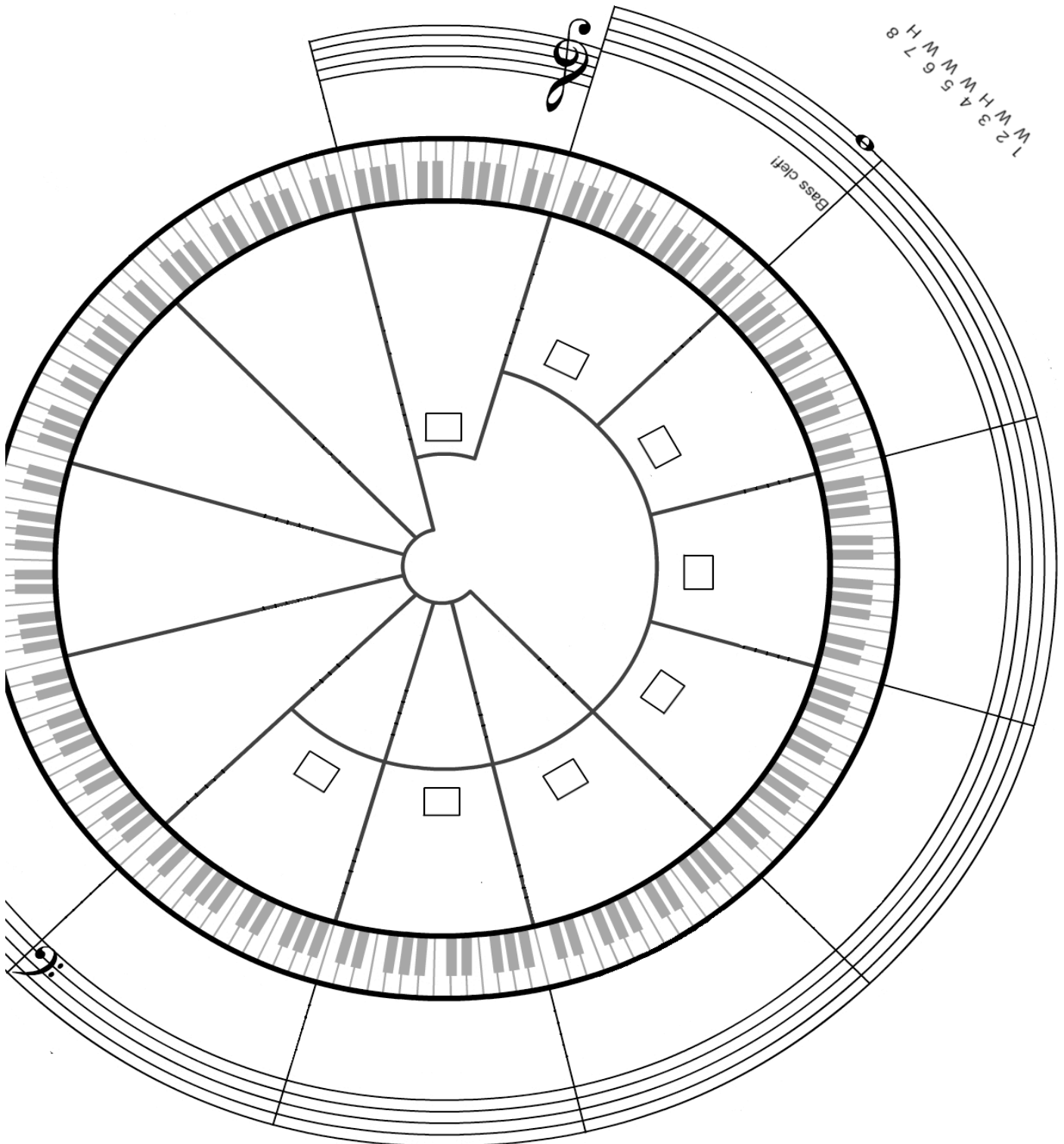
B

E $\flat$

4.9 Write the sharp scales on a staff in the circle of fifths

- The scales on the right and bottom of the circle of fifths have sharps

*WRITE* scales on the circular staff. Arrange scales according to keys on the circle of fifths. You may use dots on the keyboard. Notice the number of sharps in each scale.



4.10 Write the flat scales on a staff in the circle of fifths

- The scales on the left and bottom of the circle of fifths have flats.

*WRITE* the scales which have flats on the circular staff. Arrange scales according to keys on the circle of fifths. Notice how many flats are in each scale.

