Lesson Plan

Subject: Music: Chromatic Scale	Teacher: Devin White
Date: Day 1	School: High School
Content/Strand Area: 9th Grade	Grade Level(s): 9th grade
	Classroom Type: Band/Regular

Objectives:

NCSCOS

2.06 Perform modal, and chromatic scales for two octaves (wind instruments and mallet percussion instruments). Indefinite pitch percussion students will demonstrate proficiency of the 13 essential rudiments.

(In this case percussion students will demonstrate on a mallet instrument.)

Student Friendly

(no more than 3!)

1. Students will understand how to form a chromatic scale
2. Students will be able to apply the chromatic scale to their specific instrument
3. Students will be able to explain the importance of the chromatic scale and refer it to a musical excerpt.

Time	Procedure	Materials
15 minutes WARM-UP	Anticipatory Set/Class Starter ***What activity will be done to focus you students attention and aid in transition*** Class will begin class with a 3-4 minute private warm up. This is to get them focus on what they need to work on, it warms up their instrument and it helps them to get into the mode of the classroom. Next the class will, together, for 5 minutes will tune towards the tuba. This gets the ear warmed and makes sure the instruments will sound good together. If needed a tuner should be used to fix individual's student's intonation. At the end of the warm up section of class, the class will play three scales using concert pitch. Those scales are Bb, F, and C. If the students get the scale pitches correct in the time allotted you can move on to doing other scale exercises besides the standard North Carolina scale requirements. For example, 1-121-12321-1234321-123454321-12345654321-1234567654321-123456787654321. This might be difficult for the student, if so have them sing it first on scale degree numbers or on solfege, do re me fa so la te do.	A pencil A tuner
10 min	Lesson Connections, Concept Vocabulary, and Objective Review ***What will be done to connect this lesson with previous lessons; What vocabulary is critical and central to the lesson, including how it will be reviewed; The presentation of the lesson objectives*** The warm up brought up their knowledge of scales and how they work. Ask the class what is the definition of an enharmonic and make a student demonstrate one either on the board and another student can demonstrate it on their instrument. Then ask the students explain a natural enharmonic (E&F, B&C) and explain why that is the case. This section will end with the teacher drawing out a keyboard, with white and black keys, on the board. A hand of a keyboard will then be passed out.	White board White board marker
20min	Guided Practice with Corrective Feedback ***What will the students be doing to demonstrate comprehension; Describe what supervision, teacher intervention, and assessment will look like*** The students will be given a worksheet to practice identifying and writing out enharmonics. They will be given 10 minutes to do the worksheet. Then in small groups they will check their work with one another to make sure their answers are correct. For the students who finish early, to keep their attention, I will provide flashcards for quick identification.	Worksheet of Enharmonics

25 min	Presentation of New Material ***A description of the instructional technique and instructional procedures, including input, modeling, and checking for understanding*** Introduction to the Chromatic Scale I will explain the definition of the chromatic scale and demonstrate what it sounds like on the piano. From there I will refer back to the keyboard worksheet handed out in the beginning and have the students "play" the chromatic scale along with me. On the board I would ask a student volunteer to write out the pitches of a chromatic scale from middle C to C5. Then as a group (me on the piano) we will play that portion of the chromatic scale. I will explain the importance of the chromatic scale. We will listen to Bach: Chromatic Fantasia and Fugue in D minor, BWV 903 (opening of the fugue) to hear the chromatic run and how it sounds in content. The chromatic scale is used in a lot of runs and with the knowledge of the chromatic scale it easier to play music.	Bach piece
20 min	Independent Practice with Guided Feedback ***How will students independently demonstrate concept and/or strategy mastery; how will questions/problems be decontextualized to reinforce generalization; *If done as homework, address these issues below*** Students will then be given the standard North Carolina chromatic scale requirement for all district bands. This is to be completely memorized and prepared 2 weeks after that day for a test. (It will be used as a warm up every day following) In sections the student will go into practice rooms, most band rooms have practice space now, and play through the entire chromatic scale together. If there is a finger discrepancy I will be walking around, but every student should have an alternate fingering char handy.	All district scale requirement sheet
5 min	Lesson Review ***What concepts and procedures need to be reiterated and what procedures will be followed*** For lesson review, we will discuss the importance of the chromatic scale and the importance of knowing how to play the chromatic scale efficiently. We will also play the chromatic scale from middle C to C5.	

Differentiation Strategies	***What can be done differently with this lesson to meet the needs of students that are demonstrating difficulty with comprehension; what modifications to instruction, guided practice, and independent practice could be done to meet the unique needs of the students*** For students that have a difficulty with attention span I should write more on the board or create a visual of the words as well as pitches. The main focus of this lesson is to motivate student to achieve mastery of the chromatic scale no just to achieve performance for the exam. I think listening to the Bach shows the students that chromatic scales are really used in real music. Helping them identify what the chromatic scale sounds like in context makes it easier for the student to realize that they play runs and figures that are structurally similar to the chromatic scale all the time. With that being said knowing the chromatic scale eliminates practice time needed because the muscle memory of play the chromatic scale will come naturally while reading music with chromatic runs. Another big fous will be placed on percussionists' motivation. The percussionist section in an ensemble is the section that gets the least amount of attention. By changing the North Carolina objective form something specific to them to something that the rest of the class is doing as well will give them relevance of the chromatic scale too.
Homework/Independent	See the Independent practice above but basically the long term homework for the unit will be

Practice *	to do a mini write up on a scientist of choice and write what contribution they made and why they choose that particular person to write about. 1 page paper
Notes	The concept of doing what scientist actually do it key to this lesson. I want the students to feel capable of discovery and not be scared or shy away from lab work and "sciency" professions because they are too hard. The main focus is on girls in this lesson especially with the stress on Rosalind Franklin being key to DNA structure discovery. This lesson follows Bandura's theory of self-efficacy in letting the students feel like they have discovered something on their own and are fully capable of "doing" science.

Planning to Promote Development

Even though there is a large push towards equality in the workforce, women remain underrepresented in science and science related occupations. The culture of science was historically, and is currently, a male culture that is often hostile to women and minorities (Hanson, 2004). Many women testify to a "chilly climate"

(Whitten, 2000) that discourages all but the most determined and headstrong women. I have experienced and seen this harsh view of women in the sciences during my high school years. There were three girls in our entire AP Chemistry class and the AP physics class consisted of only 7 boys; the physics community is one of the most homogeneous in science (Whitten, 2000). The representation of women in biology seems to be better than in chemistry and physics, but there is still a lack of female interest in the sciences that starts as early as high school. Teachers, specifically science teachers, must create a warm, welcoming environment to female students in their classrooms. It is necessary to make sure females do not get discouraged by this male dominated field and learn to love and pursue a career in the sciences. Hanson (2004) states that "there is a growing –but limited- body of research that suggests that in spite of barriers the science system sets up for women, minorities, and minority women, it cannot be assumed that members of these groups will be equally disinterested in science." It is our responsibility as teachers to make sure young females have the opportunity to explore their interests in science without being disheartened by the sexism encountered in this field.

I chose to focus my lesson plan on motivating females in the science classroom to want to further pursue science at the college and professional levels. This problem of discouragement is difficult to attack when it has already been established, so I chose to focus on 9th grade girls in biology in order to stop the sexist ideas before they solidified. The first lesson on heredity, specifically a class on the discovery of the structure of DNA and how it works, was appropriate for this task because Rosalind Franklin, the woman who discovered what DNA looks like, would provide a strong positive role model for the females in my class. Heilbronner (2008) states, as one of her top five research strategies for raising girls' interest and achievement in science, that it is important to expose girls to female role models who have succeeded in Math and Science. This may offer students unique visions of themselves and motivate them to grow professionally (Heilbronner, 2008). By introducing Rosalind Franklin, as a female scientist many students might not be familiar with, I will provide students with a positive female role model who made a substantial contribution to this "male dominated" field. I will also give the students a chance to write a report and do a little extra research on one of the scientist we talked about in class which will give the female students an opportunity to explore more about Franklin if they feel inspired. My goal

is to provide female students with examples of females being successful in scientific fields that they might have viewed as only a male profession before.

Another major research strategy listed by Heilbronner (2008) is to create a classroom environment that sparks initial curiosity and fosters long-term interest in math and science. Heilbronner (2008) suggests that you encourage your students to learn safe risk-taking when performing their work. My objective was to follow Bandura's theory of self-efficacy and make the students feel like scientists and discover the material for themselves with a lot of guided questions before I actually teach them. Self-efficacy is concerned with students own beliefs about themselves and their capabilities (Bandura, 1997). It is not a "global trait but a differentiated set of self-beliefs" (Bandura, 1997). Through a series of pictures and puzzles, the students will follow the steps the actual scientists did to discover the structure and make up of DNA. I feel this will make them feel accomplished, and hopefully they will realize that they too have the potential to make discoveries about the world around them; "when domain specific measures of self-concept and performance are used, positive associations are even higher" (Hanson, 2004). Bandura believed self-efficacy "plays a key role in human functioning because it affects behavior not only directly but by its impact on other determinants such as goals and aspirations" (1997). This is very important in keeping students interested in science for the long term not just for the amount of time I have them in class.

However, Heilbronner (2008) states that "research suggests female students' achievement may be lowered when interacting with male students, a condition known as stereotype threat." I would have to make sure my groups were gender specific or that they all had at least two females (or a majority of females) in each group. This way they would feel like they had a chance to voice their opinions as well instead of being dominated by the males in the group.

Bandura's theory of self-efficacy and the targeted 9th grade girl will really make this a successful lesson in motivating female students to not be put down by the male dominated scientific field. It is my job as a teacher to make sure my students feel welcome in the field that I am teaching and will hopefully want to go on

and pursue a career in science. I want to show girls that they can actually use their potential to make a difference in the science community and shouldn't shy away from it.

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