

Lesson Plan Title

Classification Rap

Grade Level

6th Grade

Subject Area

Science

MSCCRS

L.6.4.2 Use classification methods to explore the diversity of organisms in kingdoms (animals, plants, fungi, protists, bacteria). Support claims that organisms have shared structural and behavioral characteristics.

Art Form

Music

MSCCR Creative Arts Standards

MU: Cr1.1.6 Generate and conceptualize artistic ideas and work.

Generate musical ideas for various purposes and contexts.

a. Generate simple rhythmic, melodic, and harmonic phrases within AB and ABA forms that convey expressive intent.

MU: Pr6.1.6 Convey meaning through the presentation of an artistic work.

Perform expressively, with appropriate interpretation and technical accuracy, and in a manner appropriate to the audience and context.

a. Perform the music with technical accuracy to convey the creator's intent.

Duration

2 - 3 hours - can be spread over several days

Materials

Printed information sheets about each kingdom (web resources can be found in "Recommended Resources" below.)

Pencils/paper for student groups

Computer with speakers to play music

Objectives

The students will collaborate to compose a rap based on the classification kingdoms.

The students will perform their raps about the kingdoms.

Vocabulary

Science Vocabulary:

Kingdom
Animal kingdom
Plant kingdom
Fungi kingdom
Protist kingdom
Bacteria kingdom
Unicellular
Multicellular
Eukaryotic
Prokaryotic
Autotroph (producer)
Heterotroph (consumer)

Music Vocabulary:

Measure
Beat
Rhythm
Quarter note
Eighth note
Sixteenth note

Lesson Description

1. This is a culminating lesson to be used after students already have an understanding of how organisms are classified based on their characteristics (unicellular or multicellular, prokaryotic or eukaryotic, and autotrophs or heterotrophs). They should already know the meanings of these words, but to have their definitions posted in the classroom would also be helpful.
2. Begin the lesson by having the freestyle rap music playing (link provided in resources). Explain that this track will be used to help students understand beat and rhythm as well as to serve as their background track for the rap their groups will make about the kingdoms of life.
3. Basic introduction of how to count 4/4 music (5 - 10 minutes of lesson)
The teacher will explain the following mini-lesson to students:
 - Music is divided into sections called measures. Each measure has a certain number of beats. The music we will be working with today is in a 4/4 time signature/meter, which means that there are 4 beats in a measure and the quarter note gets the beat.
 - While the music is playing, count out loud on the beat, and have students join you. Say "1, 2, 3, 4... 1, 2, 3, 4..." on the beat. You can even have students clap or tap toes to help them hear the beat a little more clearly.

- Explain to students how it would be a pretty boring song to have words just on those beats, so those counts can be broken down even further, while still maintaining only 4 beats in a measure.
- While the music is playing, count out loud and have students join you. Say: “1 and 2 and 3 and 4 and... 1 and 2 and 3 and 4 and...” with the numbers on the beat and the ‘ands’ in between. These are eighth notes.
- Continue counting out loud but add sixteenth notes. Say: “1 e and uh, 2 e and uh, 3 e and uh, 4 e and uh... 1 e and uh, 2 e and uh, 3 e and uh, 4 e and uh...”
- Optional: If students are having fun with the counting or if they need more practice, have them repeat randomized rhythms after you.

Examples:

- “1 and 2 and 3 e and uh 4...”
- “1 e and uh 2 and 3 and 4”
- Side note: There are also whole notes, half notes, etc., but those likely won’t be used in today’s rap lesson.
- Now that students can hear the beats and how they can be broken down, we can start writing our classification rap.

4. For the guided portion of the lesson, the class will practice a pre-written rap intro together while having the music playing. (A pre-recorded version of the rap as well as musical notations can be found in resources. The teacher may use this video for his/her own resource in learning the rhythms.)
Each line represents one measure (4 counts). Have students clap quietly on the beat so that they can hear how the rhythms fit into the 4 counts of the measure.

All living organisms can be classified
 Into 6 different kingdoms, and none are cast aside.
 You’ve got animals and plants and also fungi
 And protists and bacteria are the other kinds.
 They are classified by the two cell types
 And if they photosynthesize or if they take a bite.
 We are ‘bout to teach you about each one
 And you’ll know all 6 kingdoms when we’re done.

Take time to read over this intro and discuss the meaning behind phrases like “two cell types” (prokaryotic and eukaryotic) and “if they photosynthesize or if they take a bite” (autotrophs and heterotrophs).

Also, take time to show students that the rap is written in an AABB rhyme style, meaning that the 1st and 2nd lines rhyme, the 3rd and 4th lines rhyme, etc. Their group raps should follow the same rhyming pattern.

5. Divide students into 5 - 6 groups (depending on if you want to split bacteria into two kingdoms or not). Each group will be responsible for writing 8 lines to describe their assigned kingdom. Each group should have:
 - Pencil/paper
 - Printed information sheets about their assigned kingdom (web resources for these sheets found in “Recommended Resources”)

Again, remind students that each line should have 4 beats, but those beats can be broken up into 8th or 16th notes. Continue to have background music playing so they can hear how their lines will fit with the music. Also, remind students to stay consistent with the AABB rhyme scheme.

Walk around and facilitate as groups work on their raps.

6. After groups have had sufficient time to compose and rehearse their raps, it's time to perform! There are several options on how you may choose to do this.
 - Option 1 (shorter): Have the class perform the intro as a whole and have each group perform their own section individually.
 - Option 2 (longer): Have the class practice and perform the entire rap. This will require that each student has access to the lyrics of every group as well as has time to practice the rhythm of the lines.
7. Take time after the performances to discuss the lines that the groups wrote. Ask students if there were there any catchy or creative phrases that helped clarify the kingdoms and their characteristics or if there were any lines that made the groups proud of their lyrical abilities.
8. To wrap up the lesson, have students complete an exit ticket. Students should write down 2 - 3 characteristics of each kingdom that they learned from the groups' raps.

Recommended Resources

Information on Classification Kingdoms to Print for Groups

(Take what you like from each site to print on information sheets; also, feel free to add your own information.)

1. http://www.ric.edu/faculty/ptiskus/six_kingdoms/
2. <https://alevelbiology.co.uk/notes/the-five-kingdoms-classification-system/>
3. <https://www.ruf.rice.edu/~bioslabs/studies/invertebrates/kingdoms.html>

10 Minute Long Freestyle Background Track

<https://www.youtube.com/watch?v=jjzqBq5RmU>

Teacher's Resource for Classification Rap Introduction:

https://drive.google.com/file/d/1kH0w0ORQi7cMk9mK6lao_hKmmGagihYs/view?usp=sharing

Music Notations, written by Rachel Pomeroy

https://drive.google.com/file/d/1T8ao_ESPAI_vl-zcgQL-RN5dcYSX09J0/view?usp=sharing
<https://drive.google.com/file/d/1Br-0NuX8oRdMjmwFPEZISpQRhrwYzyOf/view?usp=sharing>

Extended Learning Activities

1. Add to the rap by including further classification categories, like phylum, class, family, etc.
2. For a math connection, explain the mathematical principles behind counting rhythms. Example: In a 4/4 time signature, quarter notes take up $\frac{1}{4}$ of the measure's time. Eighth notes take up $\frac{1}{8}$ of the measure's time, etc.
3. To further expand on the music standard Pr6.1.6, have students use dynamics in their raps. For example: first two lines are quiet (piano) and then next two are medium quiet (mezzo piano) and then next 2 medium loud (mezzo forte) and the last 2 loud (forte). Or the opposite (starting loud and getting quieter).
4. If you have a music teacher in your school who is willing to come into your classroom to help teach rhythms, this lesson could be taken to a much deeper level in a musical sense. The music teacher could assist students in writing down the rhythms they want to use in their raps.

Sources

N/A

Tips

1. If groups are struggling with beginning their rap, give them a starting line about their kingdom with an easy rhyming word at the end.
2. On the information sheets, highlight key words that must be included or explained in their lines. For example, the plant kingdom MUST include the words producer, autotroph, or photosynthesis in some fashion.
3. On the board, have key words defined (autotroph, heterotroph, eukaryotic, prokaryotic, etc.) so that students know how to properly use them.

Author

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