

Musical Math Review

Grade: 5th - 6th Grade

Objectives:

1. Students review key mathematical concepts in a fun and engaging manner.
2. Students demonstrate their understanding of the mathematical concepts by creating original songs with lyrics corresponding to each concept.
3. Promotes an innovative and creative approach to teaching.
4. Enhance students' creativity.
5. Promote collaboration among students.
6. Encourage critical thinking.

Materials Needed:

1. Colourful flashcards (1 set per group)
2. List of instrumental music pieces
3. Audio device to play music
4. Paper and pencils (for brainstorming and writing lyrics)
5. Recording device or smartphone (optional, for recording songs)

Introduction:

1. Welcome, students, and inform them that they will become music artists, creating their own songs based on the subject you will assign them (which will involve reviewing key mathematical concepts).
2. Divide the students into small groups of 3 or 4 people, ensuring that each group has a mix of abilities and strengths.
3. Briefly review the mathematical concepts you want to focus on: e.g. multiplication, area and perimeter, order of operations, and geometry and shapes.

Step 1 - Flashcard Review:

1. Provide each group with a set of colorful flashcards, with each card containing information related to one of the four mathematical concepts.
2. The first flashcard should contain the name of the mathematical subject, the second flashcard should include key points on that subject, and the final flashcard should contain symbols and illustrations related to the subject (example of flashcards on the 2nd page).
3. Allow students time to review the flashcards and ask any questions they may have about the concepts.
4. As the teacher, answer any questions and provide additional clarification as needed.



Step 2 - Song Creation (25 minutes):

1. Provide the students with a list of instrumental music pieces that could be used to create a song (including the option for a rap song).
2. Explain to the students that they will be creating their own songs with lyrics that correspond to the mathematical problem assigned to their group.
3. Encourage students to brainstorm ideas for lyrics, focusing on key concepts and problem-solving strategies.
4. As students work on their songs, circulate around the room to offer guidance and assistance as needed.

Step 3 - Song Presentation (10 minutes):

1. After providing sufficient time for song creation, invite each group to present their song in front of the class.
2. Encourage students to perform their songs with enthusiasm and creativity.
3. As each group presents, encourage the class to listen attentively and identify how the lyrics correspond to the mathematical concept being addressed.
4. Provide positive feedback and encouragement to each group after their presentation, and give them a big round of applause!

Final Steps:

1. Congratulate the students on their creative and engaging songs.
2. Emphasize the importance of reviewing mathematical concepts in various ways to ensure understanding and retention. Encourage students to continue incorporating music and creativity into their learning. Thank the students for their participation and dismiss them from class.

Extension Activity:

1. Invite students to record their songs and create music videos to share with classmates, on a school website, or on a social media platform. **Remember:** It's important to obtain written approval from parents before filming and uploading their children on social media.



Tip:

Instead of waiting to conduct a final review of all mathematical concepts, you can adapt this activity to occur after the completion of just one mathematical concept. The entire class can participate without being divided into groups, making the process quicker and more concise. This allows students to grasp the activity and better prepare themselves to engage in it independently within groups later on.



Below you will find an example of flashcards:

English:

<p>Area and Perimeter</p>	<p>$+$, \times, cm, cm^2</p>	<p>Geometry - Shapes</p>	
<p>Area = Multiply the length \times width Unit of measurement: cm^2</p> <p>Perimeter = Sum of lengths of all sides Unit of measurement: cm</p>		<p>Square: It has 4 equal sides and 4 equal angles (90degree)</p> <p>Rectangle: It has 4 right angles opposite sides of a rectangle are equal and parallel.</p>	<p>Triangle: It has 3 sides, 3 angles, and 3 vertices.</p> <p>Circle: A circle is a shape consisting of all points in a plane that are at a given distance from a given point, the centre.</p>
<p>Order of Operations $()$, \times, \div, $+$, $-$</p>	<p>$()$, \times, \div, $+$, $-$</p>	<p>Multiplication</p>	
<p>Solve the mathematical equation starting form left to right</p> <ol style="list-style-type: none"> 1. Parenthesis 2. Multiplication 3. Division 4. Addition 5. Subtraction 		<p>A mathematical operation that indicates how many times a number is added to itself. The result is called product. e.g. 2×5 (5 is added to himself 2 times)</p>	

Greek:

<p>Εμβαδόν και Περίμετρος</p>	<p>$+$, \times, cm, cm^2</p>	<p>Γεωμετρία - Σχήματα</p>	
<p>Εμβαδόν = Πολλαπλασιάζουμε το Μήκος \times Πλάτος Μονάδα Μέτρησης: cm^2</p> <p>Περίμετρος = Προσθέτουμε όλες τις πλευρές ενός σχήματος. Μονάδα μέτρησης: cm</p>		<p>Τετράγωνο: Έχει όλες τις πλευρές και όλες τις γωνιές του ίσες.</p> <p>Ορθογώνιο: Έχει 4 ίσες ορθές γωνίες και τις απέναντι πλευρές του ίσες.</p>	<p>Τρίγωνο: Έχει 3 γωνίες, τρεις πλευρές και τρεις κορυφές.</p> <p>Κύκλος: Είναι μια κλειστή καμπύλη γραμμή που όλα τα σημεία ισαπέχουν από το κέντρο του κύκλου.</p>
<p>Προτεραιότητα Πράξεων $()$, \times, \div, $+$, $-$</p>	<p>$()$, \times, \div, $+$, $-$</p>	<p>Πολλαπλασιασμός</p>	
<p>Κάνω τις πράξεις από αριστερά προς δεξιά</p> <ol style="list-style-type: none"> 1. Παρένθεση 2. Πολλαπλασιασμός 3. Διάρθρωση 4. Πρόσθεση 5. Αφαίρεση 		<p>Η μαθηματική πράξη όπου πολλαπλασιάζει 2 αριθμούς και βρίσκουμε έναν τρίτο αριθμό που λέγεται γινόμενο. π.χ. 2×5</p>	

