Name: _____ Date: _____

Same Note, Different Voice: What Timbre Is

Circle group

A flute and a trumpet play the same note. They play it at the same loudness. You still would not mix them up. Each sound has a different quality. This quality is called timbre. You say it like TAM-ber. It is why a violin does not sound like a piano.

To see why, think about a string or a column of air that shakes. It does not only swing one big way. It also shakes in smaller parts at the same time. These make quiet, higher tones called overtones. Your ear mixes the main note and the overtones. You hear one note.

Different instruments make different mixes of overtones. The shape, the material, and the way it is played all change which overtones are strong. A mellow sound has a few strong overtones. A bright, buzzing sound has many.

Timbre helps people who write music pick instruments. A sad tune may go to a warm, dark cello. A lively tune may sparkle on a piccolo. People have their own timbre too. That is how you know a friend's voice on the phone.

Questions

1. What is timbre?

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_____

2. What are overtones?

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_____

3. What changes which overtones are strong?

_____

_____

4. Which instrument might sparkle on a lively tune?

_____

_____

5. Why do a flute and a trumpet sound different on the same note?

_____

_____

6. Why do you know a friend's voice on the phone?

_____

_____

Words to know

timbre: the special quality that makes each sound different
overtones: quiet higher tones that sound along with a main note
mellow: soft, smooth and gentle

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Same Note, Different Voice: What Timbre Is

Triangle group

Suppose a flute and a trumpet both play the same note at the same loudness. You would still never mix them up. Something about each sound is different, and that quality is called timbre, which is said like TAM-ber. It is the reason a violin sounds like a violin and not like a piano.

To understand timbre, think about what happens when a string or a column of air vibrates. It does not only move in one big swing. It also vibrates in smaller parts at the same time, and these make quieter, higher tones called overtones. Your ear blends the main note and the overtones into one sound, so you hear a single note.

Different instruments make different mixes of overtones. The shape of an instrument, the material it is made from, and the way it is played all change which overtones are strong and which are weak. A mellow sound may have only a few strong overtones, while a bright, buzzing sound has many.

Timbre helps composers choose instruments for a piece. A sad tune might be given to a warm, dark cello, while a lively one may sparkle on a piccolo. Even people have their own timbre, which is why you can recognize a friend's voice on the phone without seeing a face.

Questions

1. What is timbre?

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_____

2. What are overtones?

_____

_____

3. What can change which overtones are strong?

_____

_____

4. Which instrument might play a lively tune that sparkles?

_____

_____

5. Why do a flute and a trumpet sound different on the same note?

_____

_____

6. Why can you know a friend's voice on the phone?

_____

_____

Words to know

timbre: the special quality that makes each sound different
overtones: quiet higher tones that sound along with a main note
vibrates: moves back and forth very fast
mellow: soft, smooth and gentle
composers: people who write music

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Same Note, Different Voice: What Timbre Is

Square group

Suppose that a flute and a trumpet both play precisely the same note at the same loudness. You would still never confuse the two, because something about each sound is distinct, and that quality is called timbre, pronounced TAM-ber. It explains why a violin sounds like a violin rather than like a piano.

To understand timbre, consider what happens when a string or a column of air vibrates. It does not merely move in one large swing. It also vibrates in smaller sections at the very same time, and these produce quieter, higher tones known as overtones. Your ear blends the main note together with the overtones into a single sound, so you perceive only one note.

Different instruments generate different mixtures of overtones. The shape of an instrument, the material from which it is made, and the manner in which it is played all influence which overtones are strong and which are weak. A mellow sound may contain only a few strong overtones, whereas a bright, buzzing sound contains many.

Timbre guides composers as they choose instruments for a piece. A sad tune might be assigned to a warm, dark cello, while a lively one may sparkle on a piccolo. Even people possess their own timbre, which is why you can recognize a friend's voice on the phone without seeing a face.

Questions

1. What is timbre?

_____

_____

2. What are overtones?

_____

_____

3. What factors influence which overtones are strong?

_____

_____

4. Which instrument might be chosen for a lively tune that sparkles?

_____

_____

5. Why do a flute and a trumpet sound different on exactly the same note?

_____

_____

6. Why can you recognize a friend's voice on the phone?

_____

_____

Words to know

timbre: the special quality that makes each sound different
overtones: quiet higher tones that sound along with a main note
vibrates: moves back and forth very fast
mellow: soft, smooth and gentle
composers: people who write music

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: Same Note, Different Voice: What Timbre Is

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: Same Note, Different Voice: What Timbre Is

Easier · 183 words · Flesch-Kincaid grade 3.2

1. The quality of a sound that makes one instrument sound different from another.
2. Quiet, higher tones that sound along with the main note.
3. The shape, the material and the way it is played.
4. A piccolo.
5. They make different mixes of overtones.
6. Each person's voice has its own timbre.

Triangle: Same Note, Different Voice: What Timbre Is

This passage · 217 words · Flesch-Kincaid grade 6.6

1. The quality of a sound that makes one instrument sound different from another.
2. Quieter, higher tones that sound along with the main note.
3. The instrument's shape, its material and the way it is played.
4. A piccolo.
5. They make different mixes of overtones.
6. Every person's voice has its own timbre.

Square: Same Note, Different Voice: What Timbre Is

Harder · 224 words · Flesch-Kincaid grade 8.3

1. The quality of a sound that distinguishes one instrument from another.
2. Quieter, higher tones that sound together with the main note.
3. The instrument's shape, its material and the way it is played.
4. A piccolo.
5. They generate different mixtures of overtones.
6. Every person's voice has its own timbre.