Students will learn:
- How beat is the heartbeat of music.
- How to identify beat in music by hearing, feeling, and finding the beat.
- How and why orchestral conductors keep the beat.
- How to distinguish strong and weak beats.
- How to organize beats into measures.

Vocabulary
- Beat
- Strong beat
- Weak beat
- Measures

The most fundamental elements of music are beat, meter, tempo, rhythm, duration, and pitch. When Quaver loses a beat, he sets in motion a series of experiments focused on beat – finding it, feeling it, changing it, identifying strong and weak beats, and organizing beats. This episode begins to build the foundation of music.
An experiment in changing heartbeats

Beat is the heartbeat of music, just like the heartbeat is the beat of the body. Speed up the beat, speed up the music. Slow down the beat, slow down the music.

Quaver travels to feel the beat at a rock concert and symphony performance

Beat is found in all forms of music and can be felt by the body. Beat is essential in helping musicians play together.

Strong and weak beats

Beats can be divided into two categories: strong and weak. Beats are organized into measures; the most common are measures of 2, 3, and 4 beats.

Find That Beat game

Patterns of strong and weak beats can be felt and identified in most pieces of music.

Song: The Beat

A song about beat revisits lessons learned in this episode.

**LESSON INTRO Introducing the episode**

Write the term steady beat on the board and ask students to describe or define it. Hopefully they will guess that it refers to predictable patterns or there’s the same amount of space in between the sounds. Next ask students to name sounds that have a steady beat. Examples might include dribbling a ball, a train clicking along the tracks, a clock ticking, or windshield wipers operating.

If no one mentions the human heart as a source of a steady beat, ask “Does the body have a beat?” Get students to talk about the role of the heart in pumping blood through the body. Ask one student to provide an impression of a repeating heart beat while other students are led in a song, such as The Bee Gee’s *Stayin’ Alive*, keeping in time to the beat provided.

Announce that just as the student provided a heartbeat for the song, beat provides the heartbeat of music.
**Discussion Points**

- Name the two kinds of beats. 
  - *strong and weak*
- As Quaver’s song says, “Like your heart has a beat so does ______.”
  - *music*
- How are beats organized?
  - *into measures*
- Explain what an orchestral conductor does.
  - *keeps the beat for musicians to follow*

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**Beat on the Loose**  
*Track 1*

**Purpose:** Keeping a steady beat

Recalling Quaver’s escapades with runaway beats, instruct students to bounce, pass, or toss balls to the beat of *Hit It!* *(Track 1)*. For bouncing, use lightweight playground balls. For passing or tossing, try beanbags or toy balls. As an alternative, have students sit in a circle on the floor and pass the beanbags to the beat.

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**Zombie Walk**  
*Track 2*

**Purpose:** Recognizing strong and weak beats

Have students pretend to have a heavy foot, which serves as the strong beat. The other foot represents the weak beat. Ask students to zombie walk as you count 1, 2, 1, 2, 1, 2 to the music of *Zombie Walk* *(Track 2).*

**Variation:** Place jingle bell bracelets on the right wrists of students and instruct them to drum alternating hands to the beat.

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**Keep the Beat in Silence**  
*Track 3*

**Purpose:** Internalizing the beat (keeping the beat in your head)

Instruct students to clap, pat, or march to the beat of *Bouncy, Bouncy* *(Track 3).* After students have established the steady beat, mute the volume for ten seconds. When the volume returns, see if students are accurately maintaining the steady beat. To strengthen their skills, try muting the volume for longer periods of time.

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**Materials Needed**

- Balls
- Beanbags
- Jingle bell bracelets
Steady Beats
Purpose: Setting a steady beat and rapping to it
Have students memorize this rhyme and clap, snap, or tap along:

I can find the steady beat,
Clap or snap or tap your feet,
Don’t speed up and don’t go slow,
Music’s built on beat, you know.

Next have students find a partner. Allow them to practice saying the rhyme together as they follow this clapping pattern:

Beat 1: each person claps his/her own hands together
Beat 2: the partners clap together as though playing pattycake

Note: It is harder to keep the beat steady when two people are involved. Direct them to recite the rhyme to a faster beat and a slower beat. Ask which is more difficult.

Tap with the Music Tracks 4 & 5
Purpose: Listening to, finding, and counting the beat
While listening to Mozart’s Rondo Alla Turca (Track 4) and Bratwurst Waltz (Track 5), instruct students to tap the steady beat with both or alternating hands in a variety of different ways: on head, knees, tummy, or cheeks. Have them tap in two’s or three’s alternating on elbows, pounding fists, hitchhiker thumbs, tapping toes, or silent marching. With their movements, have students count out loud, 1, 2, 3 or 1, 2 with the first beat always louder than the others.

VIDEO REPLAY The Beat
Purpose: Beat’s fundamental vocabulary
Have students join you in singing along with The Beat (Track 6). This song recaps everything learned in this episode. Why not have students zombie walk as they sing?
WEB ACTIVITIES

QBackBeat
In QBackBeat, students can create steady beats at three different tempos. They begin by selecting a bass drum on beats 1, 2, 3, and 4 of the measure; other percussion instruments can be added, but the steady beat remains the same.

Venues
Use the Quaver metro to transport students to famous music venues, such as Broadway. There they can listen to different music genres and tap along to the beat. It is easier to find the beat in some tunes than others.

HOMEWORK

Count the Seconds
Purpose: Keeping a steady beat
Direct students to practice keeping a steady beat at home by counting out 60 seconds with their backs to a clock. Students can ask their parents to watch the second hand of the clock while they are counting, then report back how close they were to keeping a minute in time.

Beats All Around
Purpose: Being aware of music and the beat in the world around us
Instruct students to pay attention to the windshield wipers the next time they are riding in a vehicle when it is raining. Ask if they’ve noticed that some wipers move at different speeds. Ask students to create their own list of things that they can identify in their own home or yard that have steady beats.

Challenge them to try keeping the beat of turn signals by tapping or using tongue clicks to articulate what they see. Ask them to repeat the experiment using car blinkers of surrounding vehicles.

Assign students to listen to pieces of music at home and clap, snap, and tap to the steady beat. If they find something particularly tricky, ask them to bring it in for everyone to hear.
History

Play songs by the Beatles with a prominent beat such as *She Loves You*, *Hard Day’s Night*, or *I Wanna Hold Your Hand* and have the students clap or tap to the songs. All have a 4/4 time signature.

- Members of the band were Paul McCartney, George Harrison, John Lennon, and Ringo Starr.
- The Beatles have sold more albums than any other recording artist.
- The band was formed in Liverpool, England in 1960.
- Band members were influenced by Elvis Presley, Little Richard, and Chuck Berry.
- Although not the founders of rock’n’roll, their music profoundly influenced the genre.

Science

The heart beats about 130 times per minute in newborn babies and about 70 times per minute in teenagers. The heart muscle contracts to push blood to the lungs and the body. By checking the pulse, the number of heartbeats per minute can be determined.

Show students how to check their pulses by placing the index finger and middle finger against the inner wrist, just below the thumb. Have them count the number of beats in 10 seconds and multiply by 6. Let them try it from a resting position, then lead the class in 20 jumping jacks and recheck the number of beats.
Counting off two measures before students join in song is helpful!

- 4-beat count: 1-2-3-4 ready-steady here-we go
- 3-beat count: 1-2-3 beat-with-me
- 2-beat count: 1-2 ready-and

Walk to the Beat
Purpose: Coordination, sound differentiation, and walking to the beat
Create a steady beat with a drum and mallet, and have students move to the beat. Vary the drum's speed and students’ movements. Have them jump, hop, walk, march, and tiptoe. For older students, vary the challenge. For example, instruct them to walk forward when the drum head is hit and backward when the drum rim is struck. You can also vary the way the beat is delivered - strong beat on head, weak on rim. Repeat the activity in varying tempos.

Note: For safety, direct them to look over their shoulders when moving backward.

Math and Music Challenge
Purpose: Find and recognize strong and weak beats
Using the worksheet provided, ask students to group the beats into 2’s, 4’s, 5’s, and 7’s by using measure lines. Then color the first dot in each group. This represents the strong beat followed by weak beats. This visual representation serves as a forerunner to the introduction of meter in Episode 2.

Together clap out the strong beat and pat the weak beats. Ask students to describe how the different beat combinations affect them.
TEACHER NOTES

Featured Instruments

Drum

Hands
This cover can be used to make a worksheet unit folder
**Math + Music Challenge**

Fill in the blanks below:

1. Music has both s______g and weak beats.
2. Beats are grouped together into m______s.
3. Strong beats are at the s_____t of each measure.

COLOR in the strong beats, leaving the weak beats blank.
Add a vertical line to show where measures should be placed.
(Look at the example below; these beats need to be in groups of 3)

**Example:** 🎶🎶🎶

Group these beats into 2’s.

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Group these beats into 4’s.

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Group these beats into 5’s.

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Group these beats into 7’s.

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