

## LESSON PLAN 18 - BASS

(18.1, 18.2, 18.3)

### General Notes:

**Active Listening** is an extremely valuable skill for audio engineers, producers and musicians.

**Academic Vocabulary**, as it applies to audio production, is essential for communicating ideas during the creation, performance and recording of music. The following lessons are based around the themes of:

- Acquiring academic vocabulary
- Identifying different types of bass parts through active listening
- Understanding the interaction between bass and drums
- Practical hands-on recording

### Lesson 18.1

## Identifying the Role and Style of the Bass Part

### Goals/Objectives:

Students will be able to understand the role of 'bass,' including instrumentation, and be able to describe the bass part using musical vocabulary. Advanced students will also create and record a new bass part for an existing song.

**ASSR Video Browser > Section 18, Bass.** Ask students to view the entire scene. This can be done in class, or individually. This section is approximately 22 mins in length.

### Hook:

On a DAW, listen to 1 minute of the Session File 2. All Our Yesterdays, first turning off (muting) the bass then turning it back on. Ask students if they can hear the difference?

Next, students should adjust and set their preferred bass setting and play with the Volume, Tone (EQ), panning and compare that to the default level in the Session File. You can give the students time by themselves and/or bring a student volunteer up to adjust the same audio parameters.

### Open a discussion with the class using the prompt:

**"Is there such a thing as too much bass?"**

Discuss whether: The original Session File is better

- How is the remixed version different from the original Session File?

### New Information:

The ASSR Recording Bass scene focuses on the bass guitar. It was the electric bass guitar and its acoustic orchestral counterpart the double bass that first defined 'bass' as a specific and essential component in a well-rounded recording. [Refer to Alan's comment about BBC sessions always requiring a bass, even this was not strictly part of an arrangement:

**ASSR Video Browser > Section 18, Bass > sub-section *The Importance Of Bottom End* > Video Counter (00.25)].**

However, since the 1970s bass on records has increasingly been played on a synthesizer. This trend began with disco and continued through funk, new wave, synth pop, electronic music, to hip hop and R&B. Synths can create a whole range of bass tones. They can both emulate or sample an electric bass guitar or acoustic double bass. Plus they can be programmed to create a wide variety of new synthesized bass sounds.

### What is a Bass Part Actually Playing?

Bass parts are usually 'based' around the root note, i.e. the note E when the guitars or keyboards are playing the chord of E. Other notes in a bass part will reflect exactly what type of chord is being played on top: major, minor, 7<sup>th</sup>, or some other fancy variation. The bass helps establish—and anchor—the tonality or harmonic reference point for both the other players and the listener.

### STANDARDS ADDRESSED:

**CA UC VPA Standards:** 1.0 Artistic Perception, Standard 1.1 Analyze and describe the use of musical elements in a given work that makes it unique, interesting, and expressive.

### National Core Arts Standards:

Responding-Anchor Standard #9-Applies criteria to evaluate work

### CTE Anchor Standards:

10.0 Technical Knowledge and Skills-10.1 Interpret and explain terminology and practices specific to the Arts, Media, and Entertainment sector.

### CTE Pathways Standards:

Performing Arts-B2.0 Read, listen to, deconstruct, and analyze peer and professional music using the elements and terminology of music.

# ASSR Music Production Curriculum

Bass notes are low in pitch and they occupy a frequency range that overlaps a drummer's kick drum (40Hz-250Hz). Like bass, kick drums nowadays do not have to be acoustic. They can be electronic, sampled or synthesized, or, as with a 'sub kick' device that is physically attached to the front of a kick drum to create extra low, almost boomy bass tones. Because they share a similar frequency range it's important that the bass and the kick drum compliment each other in the mix. Sometimes it's effective for them to play the same rhythmic pattern, and sometimes it's effective for them to play a complementary pattern like a "call & response\*." Either way it's generally accepted that if the bass and the kick drum pattern 'compete' or 'clash' (i.e. nearly the same but not quite, or just wildly different patterns and feels) the recording will end up sounding cluttered at best and a total mess at worst.

## Audio Reference (Dreams by Fleetwood Mac)

Listen to Dreams, a song where the bass part and kick drum pattern are almost identical.

## Guided Practice:

Open Session Files and play:

#2 Do You Live At All?

#7 The World's A Stage

#9 I'm Done.

Play the mix of each then **solo the bass part.**

Ask students to try and describe the bass part /tone.

## Music Vocabulary

Here are some vocabulary words that students can use to describe a bass part:

Aggressive	Rhythmic	Melodic	
Punchy	Clicky	Soft/Loud	Call & Response

Encourage students to come up with some new descriptive words of their own.

Additionally, ask the students to answer:

- If the rhythm of each part is 'tight' with the kick drum
- Whether it is complimentary with the kick
- Does the bass part use a call & response style\*?

Refer to **ASSR Video Browser > Section 18, Bass > sub-section Parts & Arrangement. Video Counter (12:43-15:25)**

Many DAWs have pre-recorded audio loops.

### Task:

- Ask students to find a complimentary bass loop and drum loop that work well together in either a list of loops that you provide or their own exploration with a loop browser.
- Compare, contrast and discuss why certain parts seem to fit better than others using vocabulary given in the lesson. ("Applied learning.")

Alan talks about 'chemistry' between players in **ASSR Video Browser > Section 18, Bass > sub-section Parts & Arrangement. Video Counter (12:41-13:28)**

Ask the question: Can loops have chemistry?

## Presentation/Evaluation:

Students will be prepared to describe the bass part using their new words from the music vocabulary section.

Students to **compare, contrast and assess** each new bass part that they came up with—amongst themselves and in comparison to the originally recorded bass part.

## ADVANCED LEVEL

Select one of the three Session Files and one section (a verse, a chorus...) and ask students to record a new bass part directly into the Session File, on a new track. Students can use either bass guitar or a bass patch on a keyboard or plug-in. For this lesson just focus on the groove. Sound and processing are examined in detail in Lesson 18.2.

\*Call and response, as it pertains to the bass, is where one musical phrase is stated as the **Call** and then is followed by a second musical phrase, which is the **Response**.

Audio Reference #2 (*Soul Man* and *Midnight Hour*) are good examples of call and response style bass parts. Also listen to any Stax record track performed by electric bass guitarist Donald "Duck" Dunn.

Reference **ASSR Video Browser > Section 18 Bass > sub-section Parts & Arrangement. Video Counter (14:31-15:26)** where Carol Kaye used a call & response bass line in the Joe Cocker song *Feelin' Alright* and she talks about constructing bass parts that use a statement and an answer.

# ASSR Music Production Curriculum

## Lesson 18.2

### **Finding the Right Bass Sound; Defining the Groove, Recording**

#### **Goals/Objectives:**

Students should be able to recognize and describe multiple types of bass sounds and to have a basic understanding of how they have been created. Students should also be able to define what constitutes a good fit between the basic drum pattern (groove) and the bass part and come to a group consensus regarding the interaction between the drums and bass.

#### **Some examples of reaching a group consensus:**

- "It sounds better when the bass is similar to the kick drum but not identical."
- "Fewer notes are better than more notes."
- "The drums and the bass make me want to move" Etc.

#### **Hook:**

Play some of the following Audio References to illustrate some classic types of bass sound / styles of bass playing:

Roundabout by Yes (Chris Squire / busy, progressive rock)  
Come Together by The Beatles (Paul McCartney / melodic)  
Aeroplane by Red Hot Chili Peppers (Flea / slap pop)  
Brickhouse by The Commodores (Ronald LaPread / funk)  
For The Love Of Money by the O'Jays (Anthony Jackson / Funk with effects)  
Sledgehammer by Peter Gabriel (Tony Levin / fretless, octave-divided)  
Magical World featuring Nellie Furtado (Bassnectar / synth)  
Dub Fire by Sly & Robbie (Robbie Shakespeare / Dub, Reggae)

Add some favorites of your own or ask if any students have a favorite bass player or song / bass part. The idea is to show variety.

#### **New Information:**

**Refer to ASSR Video Browser > Section 18, Bass > sub-section Getting The Sound. Video Counter (3:56) where Alan observes that**

there's really no such thing as a 'great bass sound' by itself. **Rather, that a sound needs to fit the part being played. However there are many different types of bass sound, even if they're all played on a bass guitar (reference Carol Kaye's comments on her signature 'sound')**

**Refer to ASSR Video Browser > Section 18, Bass > Sub-section Getting the Sound. Video Counter (3:57-7:11).**

All 'bass' sounds play in a similar note and frequency range.

- In terms of notes (pitch) this would be from the C below Middle C to two octaves below that.
- In terms of **frequency** this would be from approximately 50Hz to 500Hz, although important harmonics that affect tone can be present up to 5kHz.

#### **Guided Practice:**

Using Session Files plus patches from Plug-ins, ask students to find examples of different types of bass 'sound' and give them each a descriptive identifier. \_

Here are some commonly used words and audio descriptors:

Muted	Edgy	Clicky	Resonant	Rasping	Buzzy	Filtery	
Warm	Round	Sustained	Distorted	Smooth	Processed	Bright	Effected

Use these descriptors to describe as many different Bass sounds as the class is able to identify.

#### **STANDARDS ADDRESSED:**

**CA UC VPA Standards:** 1.0 Artistic Perception, Standard 1.1 Analyze and describe the use of musical elements in a given work that makes it unique, interesting, and expressive.

#### **National Core Arts Standards:**

Responding-Anchor Standard #9-Apply criteria to evaluate work

#### **CTE Anchor Standards:**

10.0 Technical Knowledge and Skills-10.1 Interpret and explain terminology and practices specific to the Arts, Media, and Entertainment sector.

#### **CTE Pathways Standards:**

Performing Arts-B2.0 Read, listen to, deconstruct, and analyze peer and professional music using the elements and terminology of music.

There are also many other bass sound generating instruments, from the tuba found in many Latin styles of music such as Norteño and Banda, to the synthesizer with its almost unlimited number of patches or sounds.

# ASSR Music Production Curriculum

## Guided Practice/Task

Students to record using different types of bass sound using either a bass guitar or a keyboard / synth plug-in to create a new bass part for one of the session files that was played in class.

- Choose one Session File
- Mute the already recorded bass track, and play along.
- Make the recording at least 8 bars in length.

**Audio References:** On **Session File #7 The World's A Stage** students can instantly 'A/B' (compare) the sound of a DI-ed bass guitar (i.e. recorded directly into the DAW versus the sound of a miked bass amp/cabinet.) Since both methods of recording were done simultaneously, students can get a true picture of the different type of sound each produces. The DI-ed bass is on Track 14 and the amp'd one on Track 15.

## The Recording Process

Refer to **ASSR Video Browser > Section 18, Bass > Sub-section Setting Up For Recording. Video Counter (2:00-4:00)** for basic choice of recording method.

Refer to **ASSR Video Browser > Section 8 EQ > Sub-section Bass. Video Counter (21:13-22:06)** for notes on applying EQ.

Refer to **ASSR Video Browser > Section 9, Compressors & Limiters > Sub-section Bass. Video Counter (16.20-17.00)** for notes on applying limiting and compression.

**Depending on student experience level and the availability of processors (EQ, Limiters/Compressors) in your studio or DAW, guide students through the processes of EQ-ing (either to enhance the sound or fix a problem) and applying limiting or compression.**

### Recording using a Bass Guitar

Use some or all of the following different recording methods and articulations:

- a. Bass played through an amp and cabinet, miked.
- b. Bass DI-ed ("direct injected" into the DAW)
- c. Bass played with fingers
- d. Bass played with a pick
- e. Bass played with both a pick and fingers close to the bridge
- f. Bass played with both a pick and fingers close to the fretboard
- g. Bass with a lot of treble added
- h. Bass without treble

### Presentation/Evaluation:

Students to define recording problems they encountered and solutions they found (finding a tone they liked, dealing with extraneous noises, inconsistencies in volume) and how, or not, they were able to find a solution. It is important that students can differentiate between problems stemming from a lack of experience or ability by the player of the part, and technical problems at the recording end.

Students will be prepared to describe the bass part using their expanded music vocabulary and also play for the class the bass part that they recorded for their Session File "new Bass part."

Students should be able to **compare, contrast and assess** each new bass part—amongst themselves and in comparison to the originally recorded bass part.

At the end of this lesson take a vote "for the best new Bass part."

## INSTRUCTOR NOTES

For students who cannot play bass guitar or want to experiment with bass parts played on a synth, **record the bass part using a MIDI keyboard with a synth plug-in.**

Use some or all of the following types of synth patch:

- a. A simple clean synth bass patch
- b. A patch with fuzz or distortion
- c. A patch with fast attack (a 'clicky' sound)
- d. A patch with no attack (slow and soft)
- e. A patch with a 'wow' sound
- f. A highly resonant bass patch
- g. A patch with chorus

### ADVANCED LEVEL

**S**tudents to experiment with processing, specifically EQ and compression settings, create different levels of sustain, enhance low end etc. Students to make notes of equipment/ plug-ins and settings used.

# ASSR Music Production Curriculum

## Lesson 18.3

### Bass in the Mix

#### Goals/Objectives:

Students to be able to identify some of the pitfalls of recording bass from working in a bad recording environment to begin with, to fluctuation in levels, shortcomings in tone, to over-processing, all of which will probably cause problems on a mix.

#### Hook:

(instructor demonstrates):

By now the students are very familiar with Session Files:

- #2 Do You Live At All?
- #7 The World's A Stage
- #9 I'm Done

Pick one of the files and make the bass part sound "over the top" by being drenched in Reverb, too much distortion Etc. After a good laugh get to work discussing how to get a Bass part to sound great in the mix.

#### New Information:

**In the Previous two lessons we spent time identifying bass parts, looking at musical examples and recording new bass parts. Now, we should examine the sonic characteristics of bass parts.**

**Sound is created by changes in air pressure transmitted to our ears by sound waves. Low frequency sounds like bass guitar or synth bass produce extremely long wavelengths and these can be difficult to hear on small speakers and difficult to assess in small rooms.**

**Refer to ASSR Video Browser > Section 2, Studio Acoustics > sub-section Acoustic Principles. Video Counter (2:30-2:50). Ideally, you want one final balance or mix of a track to sound the way you intended in any environment, i.e. live on giant speakers in a club, at home on a laptop; via earbuds or on headphones.**

**To achieve this you need to be able to 'trust' your recording environment. If your recording environment emphasizes the boominess of your bass and you EQ it to make it sound better to your ears *in that room*; when you play back in another space the chances are your bass won't be boomy enough!**

**Bass is also a crucial component of a mix in terms of 'level' or perceived volume. Only perhaps the level of a lead vocal is more crucial and trickier to get right.**

**'Correct' bass levels are to some degree a matter of taste. But there are some physical issues and limitations to consider.**

**Alan talks about the concept of "value for money," which is a way of assessing whether the level that a sound needs to be played back in order to be heard, is, basically, 'worth it.' With bass, if the sound is so boomy, or muffled that it needs pushing up and up in level, you risk that the level of the overall mix will have to be turned down because the excess bass will cause the mix to go into the red (overloaded signal). Similarly, when cutting vinyl, too much bass will carve grooves that are too deep and the needle will simply skip or jump out of the grooves!**

#### Guided Practice/Task:

Choose a Session File from:

- # 2 Do You Live At All?
- # 7 The World's A Stage or
- # 9 I'm Done.

Ask each student to remix the song only adjusting the bass track, and in any of the following ways:

- a. In level (simply louder or softer)
- b. In tone (use whatever EQ they have access to)
- c. Using effects (use whatever chorus, delay, phaser, exciter plug-ins they have access to)
- d. Pan position

#### STANDARDS ADDRESSED:

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# ASSR Music Production Curriculum

Output a mix (MP3, Wave etc) and play back each mix on different playback media (laptop, DJ speakers, earbuds).

## **Presentation/Evaluation:**

Listen to the students' work and assess the results.

Does it sound:

- Good/bad?
- Balanced/unbalanced?
- Punchy/muffled.

Note approaches that worked and approaches that didn't work.

## **INSTRUCTOR NOTES**

Make a handout if necessary that details the steps needed to output a file on whatever DAW that is being utilized by the class

## **ADVANCED LEVEL**

**1.** Students to additionally find acoustically untreated places and spaces that naturally amplify or enhance bass and come up with possible solutions to treat the space based on the information in **ASSR Video Browser > Section 2, Studio Acoustics (16.20-17.00)** and share these possible solutions with the class.

**2.** Record a complete new bass part on one of the three Session Files used in the Lesson Plan. Instruct students to bring a different perspective to the part from the original and be prepared to explain their new approach both technically and musically.