

SØRAV MUSIC ACADEMY

LEVEL 1 · PRACTICAL WORKSHEETS

Use these worksheets while working in a separate Logic Pro practice project. Write observations rather than trying to guess a “correct sound.”

Worksheet 1: What is sound?

Objective: Explain sound as a changing air pressure that can be captured, represented and played back as audio.

Before you start

Project name: _____

Date: _____ Monitoring level: _____

Steps

Open Logic Pro and create an empty project. Add an audio track and an instrument track. On the audio track, import a short audio file if available. On the instrument track, load a built-in instrument and draw or record a few MIDI notes. Observe that audio regions display recorded waveform data, while MIDI regions contain note instructions that an instrument turns into sound. Play both and write down the difference.

Observation log

What did you change or compare?

What did you hear or observe?

What stayed the same?

What would you try next, and why?

Self-check

■ I changed one variable at a time. ■ I listened at a comfortable level. ■ I saved my practice project.

Completion task: Explain in your own words the path from a vibrating guitar string to sound coming out of your headphones. Include the microphone, audio interface, DAW and playback path.

Worksheet 2: Frequency, amplitude and phase

Objective: Distinguish frequency, amplitude and phase, and explain how each relates to what you hear and measure.

Before you start

Project name: _____

Date: _____ Monitoring level: _____

Steps

Create an instrument track and play a low note, then a high note at similar velocity. Observe the tuner or spectrum analyser if available. Next, place two copies of the same short audio region on separate tracks and play them together. Reverse polarity on one channel only if you have a suitable utility plugin; compare the result carefully. Do not use polarity inversion as a generic phase-fix button.

Observation log

What did you change or compare?

What did you hear or observe?

What stayed the same?

What would you try next, and why?

Self-check

■ I changed one variable at a time. ■ I listened at a comfortable level. ■ I saved my practice project.

Completion task: Write one sentence defining frequency, one defining amplitude and one defining phase. Then describe one real mixing situation where combining two signals may change the tone.

Worksheet 3: Decibels and gain staging

Objective: Understand decibels, track gain, faders, clipping and a repeatable gain-staging workflow.

Before you start

Project name: _____

Date: _____ Monitoring level: _____

Steps

Open a multitrack session or create several instrument tracks. Play the loudest section. Watch channel meters and the stereo output. Lower overly hot source or plugin output levels where needed, then make a static balance with the faders. Avoid chasing a specific peak number as a universal rule; aim for clean signal flow, usable headroom and a balance that sounds right.

Observation log

What did you change or compare?

What did you hear or observe?

What stayed the same?

What would you try next, and why?

Self-check

■ I changed one variable at a time. ■ I listened at a comfortable level. ■ I saved my practice project.

Completion task: Make a before/after note of your session's loudest section. Record any overloaded stages you found and what you changed. Explain why lowering the master fader alone might not fix distortion inside a plugin.

Worksheet 4: Digital audio: sample rate and bit depth

Objective: Explain sample rate, bit depth, aliasing, quantisation noise and sensible project settings without treating higher numbers as automatically better.

Before you start

Project name: _____

Date: _____ Monitoring level: _____

Steps

Create a test project and locate its sample-rate setting in the project settings. Note the rate before changing anything. If you change it, understand whether Logic is converting existing material or changing the session's operating rate. Record or import a short test, then inspect the project settings and file properties. Do not resample a valuable session merely for this exercise; use a duplicate test project.

Observation log

What did you change or compare?

What did you hear or observe?

What stayed the same?

What would you try next, and why?

Self-check

■ I changed one variable at a time. ■ I listened at a comfortable level. ■ I saved my practice project.

Completion task: Create a duplicate test project. Record its sample rate and bit depth where applicable. Write a short note explaining why a session's delivery specification matters more than choosing the largest numbers by default.

Worksheet 5: Audio signal flow

Objective: Trace a signal through a Logic Pro channel strip, buses, sends and output, and identify where processing occurs.

Before you start

Project name: _____

Date: _____ Monitoring level: _____

Steps

Create a software instrument track and an auxiliary bus. Add a reverb to the auxiliary channel and set its mix to fully wet. Create a send from the instrument track to that bus, then raise the send gradually. Compare this with inserting reverb directly on the instrument. Trace the signal path and label source, insert, send, aux return and stereo output.

Observation log

What did you change or compare?

What did you hear or observe?

What stayed the same?

What would you try next, and why?

Self-check

■ I changed one variable at a time. ■ I listened at a comfortable level. ■ I saved my practice project.

Completion task: Draw a simple routing diagram for a vocal sent to a reverb bus. Label the dry path and the wet return. Then describe how you would route a kick to control compression on a bass track.

Worksheet 6: Understanding your DAW

Objective: Navigate the core parts of Logic Pro and distinguish tracks, regions, channel strips, buses, plugins and project settings.

Before you start

Project name: _____

Date: _____ Monitoring level: _____

Steps

Create a new empty project. Add one audio track and one software instrument track. Rename them clearly. Open the mixer, identify volume, pan, inserts, sends and output. Save the project inside a dedicated practice folder. Reopen it and confirm that the tracks and instrument settings are retained.

Observation log

What did you change or compare?

What did you hear or observe?

What stayed the same?

What would you try next, and why?

Self-check

■ I changed one variable at a time. ■ I listened at a comfortable level. ■ I saved my practice project.

Completion task: Create and save a small Logic Pro practice project with clearly named audio and instrument tracks. Reopen it and make a short checklist of what you would need to share it with another producer.

Worksheet 7: MIDI versus audio

Objective: Explain the difference between MIDI performance data and audio, and choose the right workflow for editing or delivering each.

Before you start

Project name: _____

Date: _____ Monitoring level: _____

Steps

Create a software instrument track and enter a four-bar MIDI phrase. Play it through a built-in instrument. Bounce or print the phrase to an audio track using a suitable Logic workflow. Compare the MIDI region and audio region. Change one MIDI note and observe that the instrument performance changes; the already printed audio will not update unless you bounce it again.

Observation log

What did you change or compare?

What did you hear or observe?

What stayed the same?

What would you try next, and why?

Self-check

■ I changed one variable at a time. ■ I listened at a comfortable level. ■ I saved my practice project.

Completion task: Export one short MIDI phrase and one audio bounce. Name both files clearly. Write when you would send MIDI, when you would send audio, and when you would send both.

Worksheet 8: Critical listening fundamentals

Objective: Use repeatable listening comparisons, reference tracks and level matching to make more reliable production decisions.

Before you start

Project name: _____

Date: _____ Monitoring level: _____

Steps

Import a reference track into a separate track and route it appropriately so it does not accidentally enter your mix export. Compare similar song sections at similar loudness. Make notes about vocal level, low-end balance, brightness, depth and stereo width. Toggle your mix and reference deliberately; do not change five things at once.

Observation log

What did you change or compare?

What did you hear or observe?

What stayed the same?

What would you try next, and why?

Self-check

■ I changed one variable at a time. ■ I listened at a comfortable level. ■ I saved my practice project.

Completion task: Compare your practice mix with one suitable reference. Write three observations and choose only one change to test. Recheck at a similar loudness and record whether the change helped.