



Music Technology Lessons



This is a very easy Retrograde lesson, which is a good starting point for the students to learn how to input music to the computer using a MIDI keyboard.

Lesson 003

DATES _____

The 2nd through 5th Grade students receive one 40 minute lesson per week.

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Objectives: Students will complete a retrograde composition using CDEFG notes on the keyboard and a sequence of notes stated by the teacher. Students will use sequencing software and the computer to playback the song together, then expand the song individually.

Procedures:

Students should have prior knowledge of the definitions of MIDI, General MIDI, and other keyboard / tech terms. Follow this link to review brief definitions.

(Follow this link to see the Retrograde Lesson Plan and instructions for Music Time Deluxe.)

After the students have successfully completed the Retrograde Lesson, they can extend the song using a song form, such as ABA or ABACA. This can be their first music composition to be recorded to an audio CD (CD-R) to send home to the parents. This will involve some work for the teacher. The teacher might wait to record the CD's until the end of each term (9 weeks at our school). Demonstrate the process of recording the MIDI (.MID) file as a Wave (.WAV) file to the students.

The student MIDI files will have to be played through the keyboard and recorded as a wave (.WAV) file into the computer. Sometimes having a small, inexpensive mixer (6 or 8 channel) connected to the computer will help with the volume control. A software program, such as Data Becker Music Center or Sony's Acid Music Studio will record the music as a .WAV file. Then the music may be compiled and recorded onto CD's using a CD-writing software program, such as Adaptec / Roxio, or a program that came with the CD-writer (burner).

Alternatively, the files can be recorded as MP3's or MIDI files on a floppy disk if the student has a computer at home. MIDI files will sound different on each computer system, depending on the sound card. Sometimes the student is surprised at how different MIDI files sound on various computers.

"It doesn't sound like the instruments that I recorded..." is a popular comment from the students. One example of this can be found on our own Music Tech Teacher site on the Student Work page. Students can listen to their files in a MIDI format and in the Scorch (Sibelius) format.

(2006 Update) - We now have the ability to transfer the students' MIDI files to a sound wave directly through the Sibelius 4 Notation program. We use Sony's Acid Music Studio to adjust the volume and other controls before saving the file in .wav and .MP3 formats.)



Ask students to notice the differences. _____

Which format do they like best? _____

Why do their songs sound different in various computer formats of music? _____

What are some of the various types of computer music formats? i.e. CD audio, MIDI, WAV, MP3, formats from various music software publishing companies - Scorch (Sibelius).

What happens to the instrument sounds when compositions are recorded using a MIDI (not General MIDI) keyboard, then played back through a different source?

Extra Activities:

Work on musical skills through some of the quizzes and games on the Music Tech Teacher Quizzes and Games pages. Choose games according to the skill level of the students.

Notes: _____

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