

Professor Pressnote's Music Machine

Catalog Number 26-2573



The Professor Pressnote's Music Machine program from Radio Shack® is a series of educational activities designed to introduce children to the fundamentals of music. The program is ideal for home or school use. With these learning materials, children can begin to learn music and have fun at the same time. Professor Pressnote's Music Machine was designed for use with a 32K TRS-80 Color Computer cassette system with Extended Color BASIC or disk system with Disk Extended Color BASIC, and a TRS-80 Electronic Book™ (Cat. No. 26-3141). Use of the Electronic Book makes it easy for any child to interact with the computer.

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Professor Pressnote's Music Machine

Radio Shack®



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FORT WORTH, TEXAS 76102

First Edition

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INTRODUCTION

Professor Pressnote's Music Machine is an interactive music learning program for use with the TRS-80® Color Computer and the TRS-80 Electronic Book. The program was designed to give the learner experience with some of the basic concepts of music. These concepts include the names and locations of the notes on a musical staff, the lengths of various notes, and the way notes fit together to make tunes.

This manual contains a User's Guide and a section on Concepts and Review.

The User's Guide describes the activities in Professor Pressnote's Music Machine, explains how the Electronic Book is used, and provides a step-by-step demonstration of each activity. The program has six different learning activities:

- Play a Tune displays a musical staff with the notes of the C scale and will play three familiar tunes.
- Note-Finder helps the learner become familiar with the notes of the C scale by showing their names and their positions on a musical staff.
- Length-Maker presents the concept of note values by letting the learner write short tunes using notes of different pitches and lengths.
- Tone Machine allows the learner to play live music, either by reading from sheet music or by making up original tunes.
- Copy a Tune lets the learner enter the notes of a tune that is copied or created, then play back the tune.
- There are two Quizzes in the program. "Name the Notes" tests the learner's understanding of the locations and names of the different notes on a musical staff. "Add the Lengths" tests the learner's understanding of the length values of notes.

The Concepts and Review section includes for each activity an introduction to the musical concepts encountered in the activity and a quick review of these concepts.

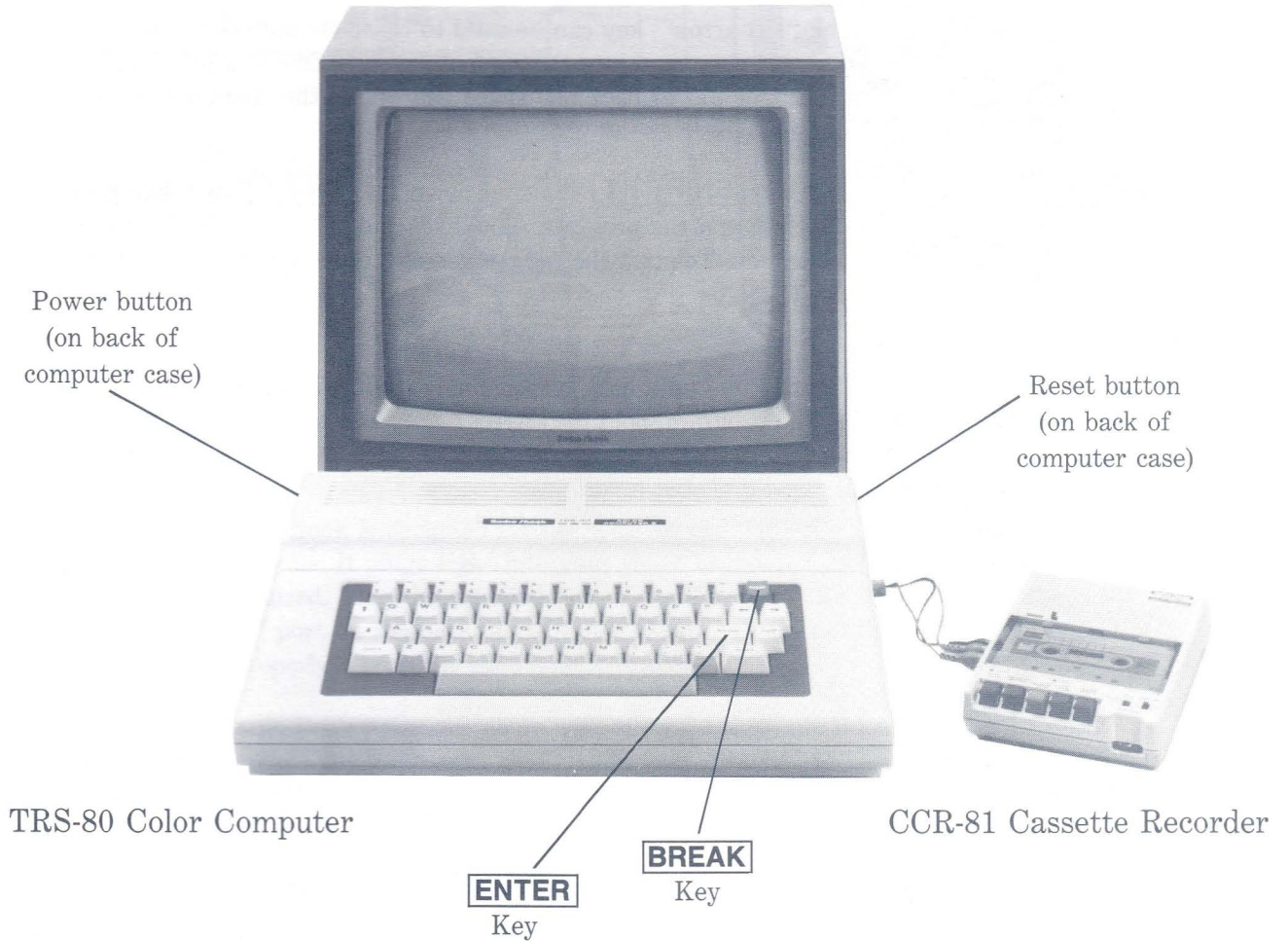
At the end of the manual you will find appendices which provide additional information about using your TRS-80 Color Computer.

Professor Pressnote's Music Machine can be used with a 32K TRS-80 Color Computer tape system (with Extended Color BASIC), or a 32K TRS-80 Color Computer disk system (with Disk Extended Color BASIC). It can also be used with the Radio Shack Network 2 System with a Color Computer host and Color Computer student stations.

THE TRS-80 COLOR COMPUTER

Before loading the program into the TRS-80 Color Computer, take a moment to familiarize yourself with the computer. Here are the major components you'll need to know:

TRS-80 Color Video Receiver
or
Any Color TV



Note: If you are setting up your TRS-80 computer system for the first time, refer to the user's manual packed with each TRS-80 system for instructions. (Disk System users, see the *Color Computer Disk System Owner's Manual* for information on the components of the disk system.)

Now let's take a moment to look at some special keys and features.

SPECIAL KEYS AND FEATURES



This flashing box is called a “cursor.” When it appears you can enter information into the computer.

OK



The “**OK**” prompt and cursor appear on the video display whenever the computer is waiting for a command. (An example of a command is: **R** **U** **N** **ENTER** .)

ENTER

This key is used to enter information into the computer. Remember to press **ENTER** after you have typed a response.



The “left-arrow” key can be used to erase characters when you are typing a command into the computer. Each time you press this key, the cursor moves back one space and erases the character in that space.

SHIFT **T**

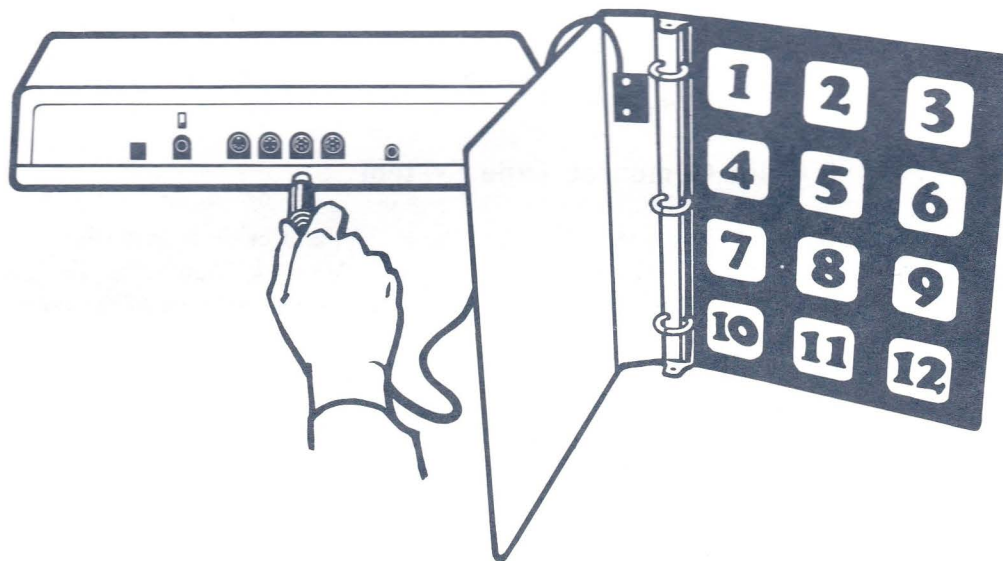
Pressing **SHIFT** **T** (holding down the **SHIFT** key while pressing **T**) will end the program. You’ll see the “**OK**” prompt displayed on the screen. To start the program again, type **R** **U** **N** and press **ENTER**.*

* If reverse-video letters (light letters on a dark background) are displayed when you type at the keyboard after ending the program, hold the **SHIFT** key and press the **0** key to switch back to regular characters (dark letters on a light background). Typing a command in reverse-video letters will cause a syntax error.

THE TRS-80 ELECTRONIC BOOK

Setting Up

Let's take a look at the TRS-80 Electronic Book and how it fits into your system.



The TRS-80 Electronic Book is designed for use with special TRS-80 Color Computer Electronic Book programs. It plugs right into your Color Computer system; no special adaptors or connectors are required. Plug the rounded end of the Electronic Book's cable into the "RIGHT JOYSTICK" port on the back of the Color Computer. Do not force the plug; when the pins and holes are properly aligned, it should slide in easily.

Radio Shack Electronic Book programs come with special Electronic Book pages to be used with the programs. When the Electronic Book is properly attached to the Color Computer, insert these pages into the book. Now the Electronic Book is ready for use with the program.

Using the TRS-80 Electronic Book

The Electronic Book is an easy way for children to interact with the Color Computer. A child enters commands into the computer by pressing marked areas on the pages of the Electronic Book instead of pressing keys on the computer. The Electronic Book can be used on most surfaces, but for best results a firm, flat surface is recommended.

LOADING PROFESSOR PRESSNOTE'S MUSIC MACHINE PROGRAM

Note: It is a good idea to make a backup copy of the Professor Pressnote's Music Machine program before you use it for the first time. The original copy can then be stored in a safe place. The directions for making backup copies are in Appendix I.

To load the program into the Color Computer, follow the steps listed below under "Using the TRS-80 Color Computer Tape System" or "Using the TRS-80 Color Computer Disk System."

Using the TRS-80 Color Computer Tape System

Set up and connect the Color Computer, color monitor or TV, and cassette recorder according to the instructions in the *TRS-80 Color Computer Operation Manual*. Attach the Electronic Book to the computer at the "RIGHT JOYSTICK" port located on the back of the computer. Then follow the steps below:

1. Turn on the color monitor or TV, and set the volume at a normal listening level. If you are using a television, select channel 3 or 4 (whichever is weaker or not used in your area). Then select the same channel on the "CHANNEL SELECT" switch at the back of your computer.
2. Turn on the computer by pushing in the power button on the back of the computer. You'll see this message appear on the video screen:*

```
EXTENDED COLOR BASIC v.r  
COPYRIGHT © 1982 BY TANDY  
UNDER LICENSE FROM MICROSOFT  
OK
```

If you don't get this message, turn your computer off and on again. Adjust the brightness and contrast on your TV set. Check all connections. If you still don't get the message, refer to the "Troubleshooting and Maintenance" section of your *TRS-80 Color Computer Operation Manual*.

3. Place your BACKUP copy of the Professor Pressnote's Music Machine program cassette in the cassette recorder.
4. Set the volume level of the cassette recorder to between 5 and 7.
5. Press "REWIND." When the cassette tape is completely rewound, press "STOP," then press "PLAY."

* In place of "v.r", you'll see two numbers that specify which version and release of EXTENDED COLOR BASIC you have.

6. Type **C L O A D** and press **ENTER**. The computer will search for and load the program. While the computer is searching for the program, the letter “**S**” will be displayed in the upper-left corner of the video screen. When the computer finds the program, the letter “**F**” followed by “**PROF**” will appear. When the program has been loaded, the “**OK**” prompt will reappear.

Note: If you get an error message while loading the program, the volume on the cassette recorder could be too low or too high. You should:

- press the “STOP” button on the cassette recorder
- turn the volume a little higher or a little lower
- press the RESET button on the back of the computer
- repeat the instructions from Step 5 above.

If consistent loading problems develop, take your computer cassette recorder to your local Radio Shack store or Computer Center for proper balance, azimuth alignment and cleaning.

7. When the “**OK**” prompt has reappeared, type **R U N** and press **ENTER**. You’ll see a copyright screen, then the title screen, appear on the video display.

To begin working with Professor Pressnote’s Music Machine Program, turn to page 11 in this manual.

Using the TRS-80 Color Computer Disk System

Set up and connect the Color Computer and color monitor or TV according to the instructions in the *TRS-80 Color Computer Operation Manual*. Attach the Electronic Book to the computer at the “RIGHT JOYSTICK” port on the back of the computer. Then follow the steps below:

1. Connect the disk system to the Color Computer. If this is the first time you’ve used the Color Computer disk system, follow the instructions in Chapter 1, Part A, of the *Color Computer Disk System Owner’s Manual*.

Note: Always remember to insert the disk controller cartridge **BEFORE** you turn **ON** the power, and to turn **OFF** the power **BEFORE** you remove the disk controller cartridge. (In other words, **NEVER** insert or remove the disk controller while the power is **ON**.)

2. Turn on the color monitor or TV, and set the volume at a normal listening level. If you are using a television, select channel 3 or 4 (whichever is weaker or not used in your area). Then select the same channel on the “CHANNEL SELECT” switch on the back of your computer.
3. Turn on the computer. The power button is on the back of the computer on the left side.

4. Turn on the disk drive(s). The power switch is on the back of the disk drive. You'll see this message appear on the video screen:*

DISK EXTENDED COLOR BASIC v.r
COPYRIGHT © 1982 BY TANDY
UNDER LICENSE FROM MICROSOFT
OK

If you don't get this message, turn off the computer, check the connections, and turn the computer on again. You may also need to check the contrast and brightness on your TV set.

5. Insert your BACKUP copy of the Professor Pressnote's Music Machine program diskette in Drive 0 (the disk drive closest to the computer on the cable) with the square notch up and the label facing to the right. Close the disk drive door.
6. Type **R U N " P R O F "** and press **ENTER**. You'll see the title screen appear on the video display.

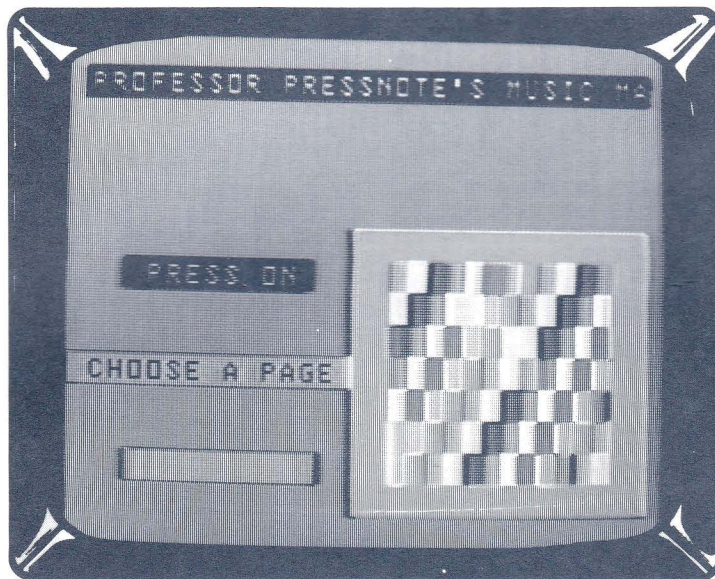
To begin working with the Professor Pressnote's Music Machine program, turn to page 11 in this manual.

* In place of "v.r", you'll see two numbers that specify which version and release of DISK EXTENDED COLOR BASIC you have.

USER'S GUIDE

USING PROFESSOR PRESSNOTE'S MUSIC MACHINE

Now that the program is loaded and running, let's take a look at how it works. The first screen you'll see is the copyright screen followed immediately by the title screen:



At the top of the title screen you'll see the title of the program in moving scroll. Near the center of the screen there will be the words "**CHOOSE A PAGE**" and the flashing message "**PRESS ON.**" The computer is now ready for you to select any of the six activities in the program.

Now let's take a look at how to use the activities in Professor Pressnote's Music Machine.

PLAY A TUNE

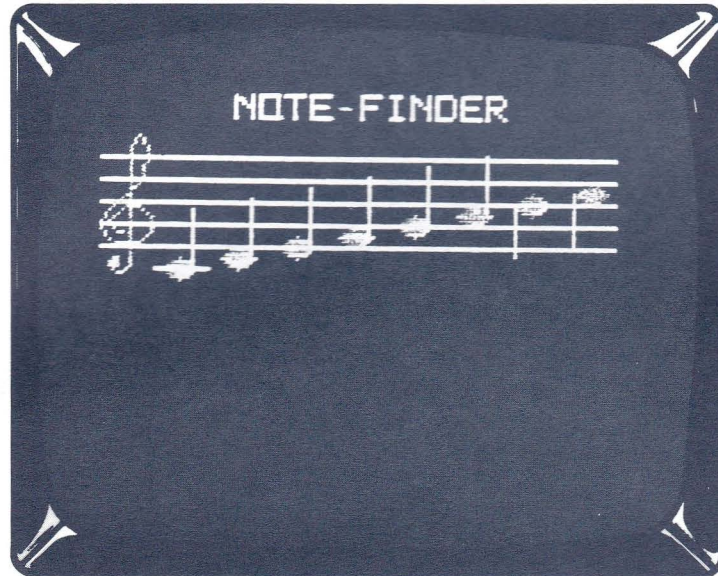
First, let's turn to the "PLAY A TUNE" page. Press the part of the page labeled "ON/OFF." You'll see the name of the activity you chose displayed on the title screen. Then the screen will change to the "PLAY A TUNE" activity screen:



On this screen you'll see a musical staff with the notes of the C scale. The computer will play the notes of the scale, and will highlight each note and give its name as you hear it. If you do not hear the notes, turn up the volume on your TV or monitor. Press any one of the large blue notes labeled "PRESS," and the machine will play you a familiar tune. At the end of the tune, the computer will play the C scale again. When you are ready to try another activity and the computer is playing the C scale, press "ON/OFF" to return to the title screen. You can only move to another activity by first turning OFF the current one.

NOTE-FINDER

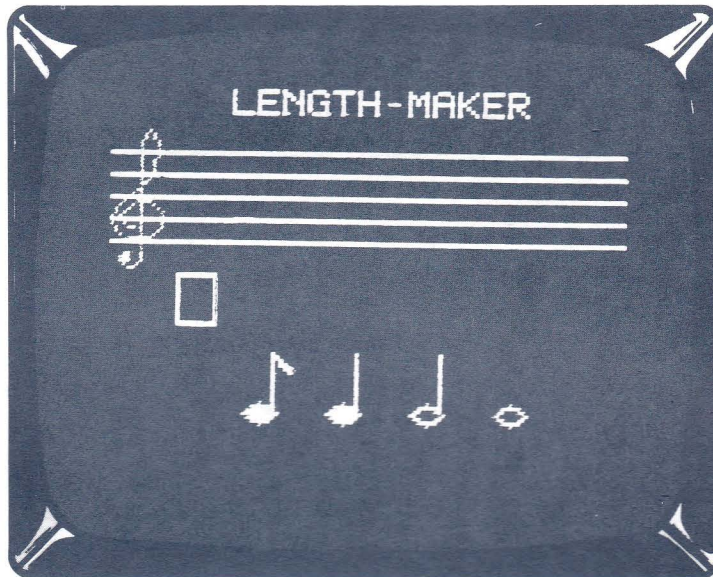
Now let's turn to the "NOTE-FINDER" page. Press "ON/OFF," and you'll see the name of the activity displayed on the title screen. Then the screen will change to the "NOTE-FINDER" activity screen:



On this screen you'll see a musical staff with the notes of the C scale. When you press any one of the labeled blue notes in the Electronic Book, the computer will play you that note and show you its name and its location on the staff. When you are finished with "NOTE-FINDER," press "ON/OFF" to return to the title screen.

LENGTH-MAKER

Next, let's turn to the "LENGTH-MAKER" page. Press "ON/OFF." You'll see the name of the activity displayed on the title screen. Then the screen will change to the "LENGTH-MAKER" activity screen:



In "LENGTH-MAKER" you can use notes of different pitches and lengths to create a short tune. On the screen you'll see an empty musical staff. Below the staff you'll see four different note lengths: eighth note, quarter note, half note, and whole note. These are the note lengths that you can use in "LENGTH-MAKER."

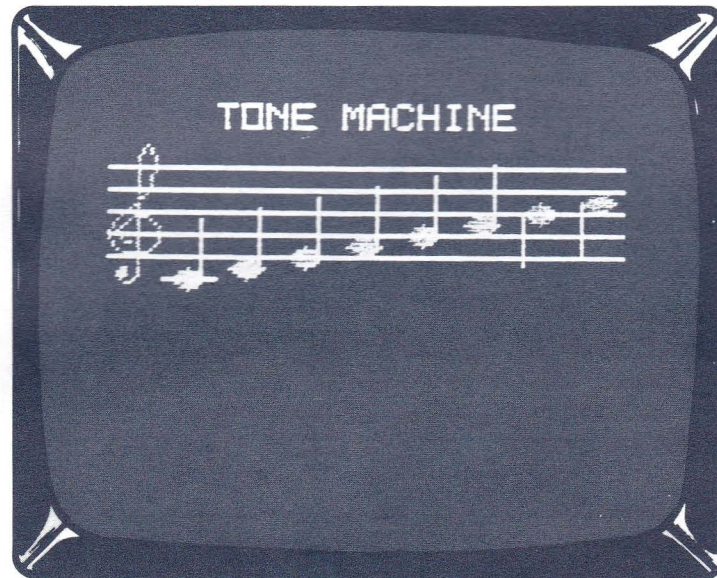
First, choose a note's pitch by pressing one of the blue notes on the "LENGTH-MAKER" page. You'll hear the note and see its letter name below the staff. If this isn't the pitch you want, you may change it by pressing another note.

Next, choose the length you want your note to have by pressing the part of the page labeled "LENGTH." You can make your note an eighth note, a quarter note, a half note, or a whole note. The box around the note value tells you the length your note will have. Each time you press "LENGTH," the box moves to the next note value.

When you are happy with the note and its length, press "YES" and the note will be displayed on the staff. Now you can go on to the next note. You can put up to eight notes on the staff. When you want to hear the notes you have written so far, press and quickly release "REPLAY" and the computer will play your tune. If you want to start over or write a new tune, press "REPLAY" and hold it down for about five seconds until the staff is cleared. When you are done with "LENGTH-MAKER," press "ON/OFF" to return to the title screen.

TONE MACHINE

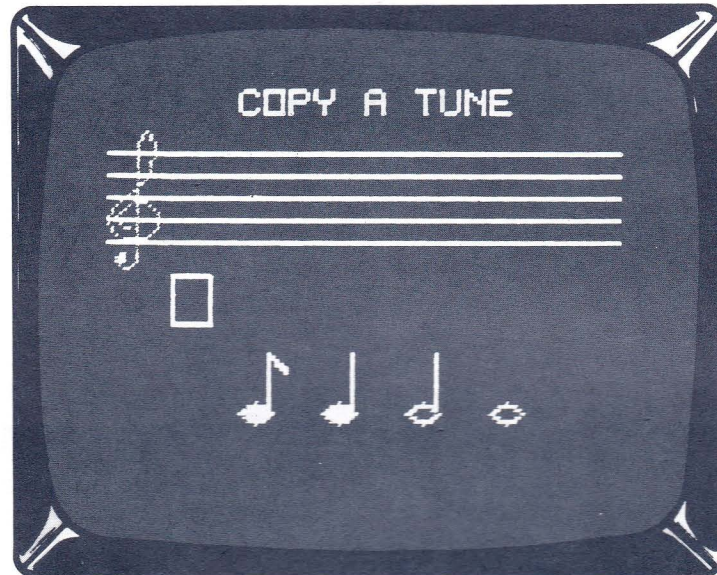
Now let's try the "TONE MACHINE." Find the "TONE MACHINE" page and press "ON/OFF." You'll see the name of the activity on the title screen. Then the screen will change to the "TONE MACHINE" activity screen:



With the "TONE MACHINE" you can play live music. The screen shows a musical staff with the C scale. Press any of the lettered keys on the page and the computer will play that note for you. As each note is played its name is given under the musical staff. Hold your finger on the key for as long as you want that note to play. When you are ready to go on to the next note, press another key. You can make the notes an octave higher by pressing "OCTAVE." Press "OCTAVE" again and you'll return to the lower octave. Using the "TONE MACHINE" you can make up your own tunes or play from sheet music. When you are finished with the "TONE MACHINE," press "ON/OFF" to return to the title screen.

COPY A TUNE

Once you have worked with “NOTE-FINDER” and “LENGTH-MAKER,” you are ready to try “COPY A TUNE.” Find this page in the Electronic Book and press “ON/OFF.” You’ll see the name of the activity on the title screen. Then the screen will change to the “COPY A TUNE” activity screen:



The screen you’ll see for “COPY A TUNE” will be similar to the one you saw when you used “LENGTH-MAKER.” With “COPY A TUNE” you can copy tunes from sheet music, or from the sample tunes provided in the Concepts and Review section of this manual. Then you can listen to the tune you have copied.

First, choose the note’s pitch by pressing one of the labeled blue notes on the “COPY A TUNE” page. You’ll hear the note and see its letter name below the musical staff. If it isn’t the note you want, you may change it by pressing another note.

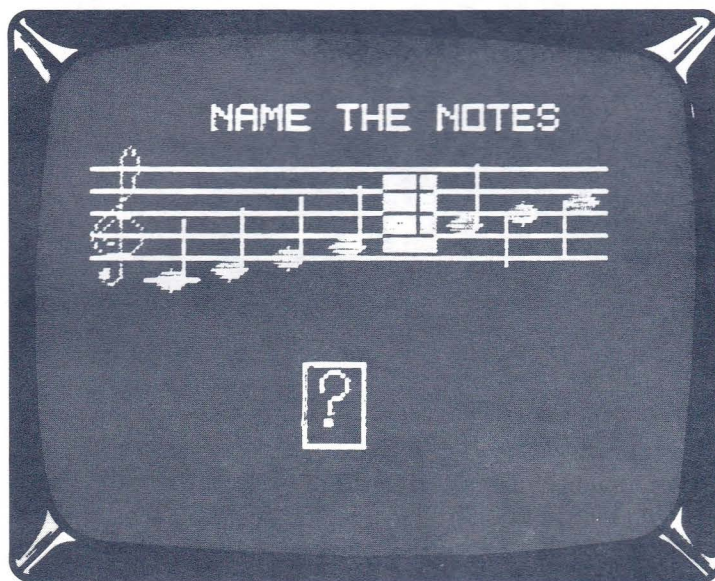
Next choose the length for the note by pressing the part of the page labeled “LENGTH.” The box around the note value tells you the length your note will have.

When you have the note and length that you want, press “YES” and the note will appear on the staff. Now you can go on to the next note. You can press and quickly release “REPLAY” to hear how your tune is building up, or to hear your finished tune. When a staff is full, a new blank staff will appear and you may continue your tune. You can write up to four staves of notes, which the computer will store until you are ready to play them back.

If you want to start over or write a new tune, press and hold “REPLAY” for about five seconds until the staff is cleared. When you are ready for another activity, press “ON/OFF” and you’ll return to the title screen. Be aware that once you press “ON/OFF,” the computer will no longer store your tune.

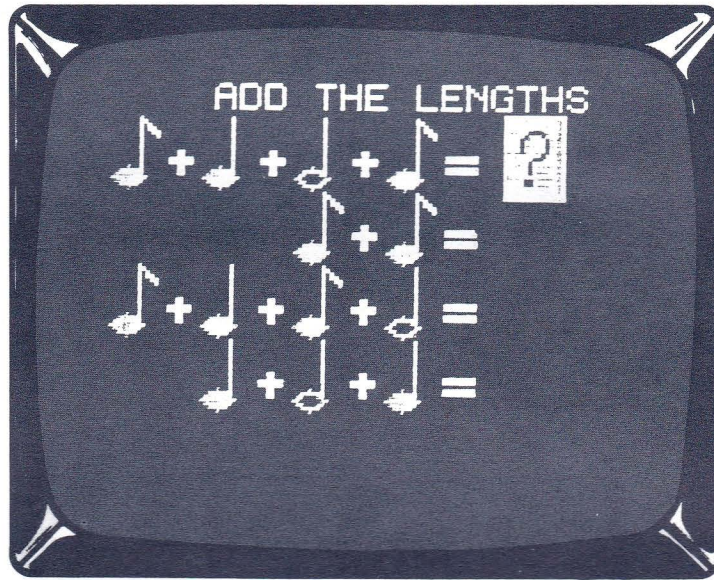
QUIZZES

When you want to see how well you know the note names and lengths, you can take the "QUIZZES." Find the "QUIZZES" page in the Electronic Book, and press "ON/OFF." "QUIZZES" has two parts—"Name the Notes" and "Add the Lengths." The title screen will show you that first you'll be doing "Name the Notes." Then the display will change to the screen for "Name the Notes":



On the screen you'll see a musical staff with one of the notes flashing and playing. Give the letter name of the note by pressing that letter on the "QUIZZES" page in the Electronic Book. The answer you give will appear in the box at the bottom of the screen. If you gave the right answer, the note will remain highlighted and another note will begin to flash and play. If your answer is wrong, an "X" will appear through your answer and the note will be correctly labeled for you. Then another note will begin to flash and play. After the computer has asked you to name all the notes on the scale, you'll see the title screen with your score.

Next, you'll see the words "Add the Lengths" on the title screen. This means that you can now try the second quiz. The display will change to show the screen for "Add the Lengths":



On this screen, you'll see four lines of musical notes of different lengths. In this part of "QUIZZES," you are to add the lengths of the notes in each line. The answer will be another note length. For example, two eighth notes equal one quarter note, or a half note and two quarter notes equal a whole note.

The box with the flashing question mark tells you which line of notes to add. Choose your answer from the four note values on the "QUIZZES" page. Answer by pressing on the note value you choose. If your answer is right, it will appear beside the line of notes, and the question mark will move to the next line of notes. If your answer is wrong, you'll hear a tone and the question mark will not move. Try another answer until you get the right one.

When you have given the right answer for all four lines of notes, you'll see the title screen with your score. Your score will tell you how many answers you got right on the first try. This is the end of the "QUIZZES." You will automatically be returned to the title screen and from here may choose any of the six activities of Professor Pressnote's Music Machine.

If you want to stop for now or try another program, type **SHIFT T** (that is, hold down the **SHIFT** key and type the letter **T**). You'll see a copyright screen with the "OK" prompt.

If you decide you want to start the same program again, type **RUN** and press **ENTER**. To change to a different program or to end the session, rewind the cassette tape completely, remove it from the cassette recorder, and store it in a safe place. If you are using a disk system, open the disk drive door or latch, remove the diskette, return it to its protective jacket, and store it in a safe place.

CONCEPTS AND REVIEW

OVERVIEW

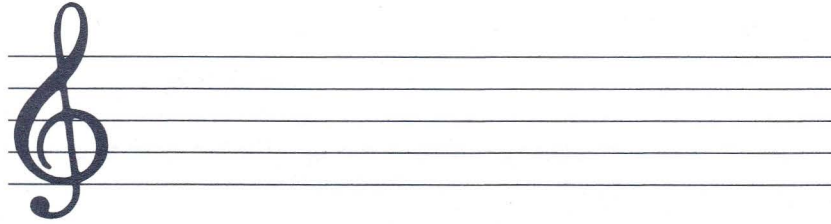
Professor Pressnote's Music Machine is designed to give children practice in some of the fundamentals of music. This manual includes Concept and Review pages for use with the six learning activities in the program.

The Concept page for each activity introduces the musical concepts of that activity. When younger children are using the program, these Concept pages can be used by an instructor or parent as a teaching guide. Older children can read through the Concept pages and complete the Review pages as reinforcement.

You may duplicate the Concept and Review pages for use at school or at home.

PLAY A TUNE — CONCEPTS

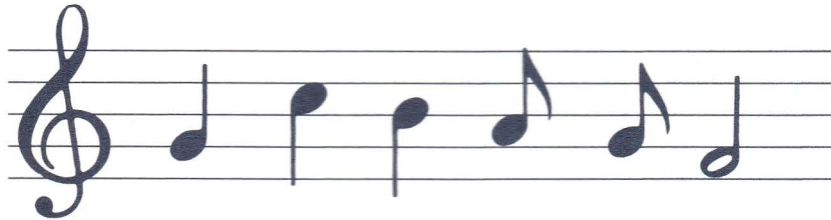
The five lines you see below are called a musical staff. The staff is what music is written on.



These are called notes.



Each note represents a musical sound called a pitch. You write notes on a staff like you write words on a piece of lined paper.



If someone says a word, you can write it down. If someone sings a sound, you can write it as a note on a musical staff. You can read music just like you read a book. You read notes on the staff from left to right.

Each note on the staff has a name. Look at the eight notes on the staff below:



Each note is marked with a letter. These letters are the names of the notes—C, D, E, F, G, A, B and C.

PLAY A TUNE — REVIEW

Draw a musical staff.

How many lines are in a staff?

What is a staff used for?

Draw some notes.

What are notes used for?

How do you read music?

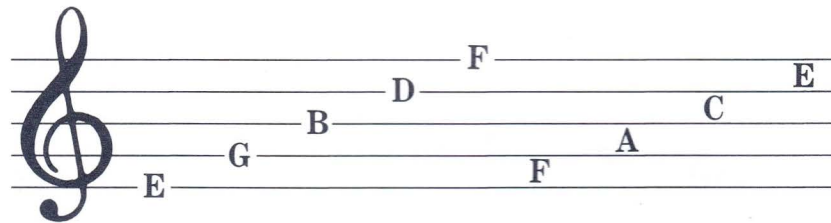
NOTE-FINDER — CONCEPTS

Let's look at the notes on the staff:



Different notes are located at different places on the staff. The name of a note and its sound depend on where you find it on the staff. High notes are at the top of the staff and low notes are at the bottom. The “highness” or “lowness” of a note is called its *pitch*.

Some notes are written on the *lines* of the staff, and others are written in the *spaces* between the lines. Let's look at the names of the notes on these lines and spaces.



Starting at the bottom, the notes on the *lines* of the staff are called E, G, B, D and F. Starting at the bottom, the notes in the *spaces* of the staff are called F, A, C and E.

The picture below shows eight notes in a row from lowest to highest:

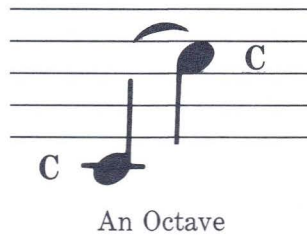


NOTE-FINDER — CONCEPTS

The first two notes shown on this staff are actually below the staff. Remember that the bottom line of the staff is the E line. The space just below it is D, since D comes before E in the alphabet. There is another note shown that is even lower than D. It is C. It has a line drawn through it to show that it would be on a staff line (and not in a space) if there were a staff line there.

This series of eight notes, all in a row, is called the C scale. Read the notes of this scale from left to right—C, D, E, F, G, A, B and C. Remember that when you get to G, you start over again with A.

You can see that the first and last notes of our scale have the same name. Both of them are C. If you play these notes, you'll hear that they sound similar, except that one is higher than the other. This eight-note distance between notes that have the same name is called an *octave*.



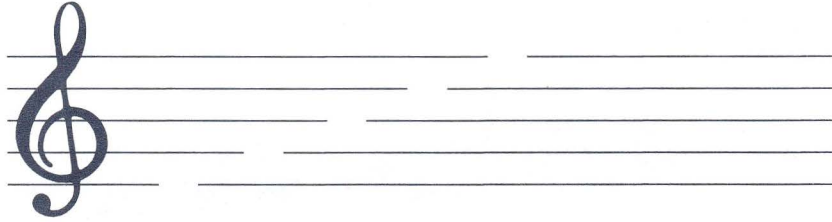
Look at the two C's above. The C scale we have looked at started at the lower C and ended at the higher C. You can make another C scale if you start at the higher C and go up. Let's take a look at what this scale looks like.



You can see that the names of the notes for this C scale are the same as those for the other C scale we saw. Each note is one octave higher than the corresponding note in the other C scale. Notice that when the notes go above the musical staff, we have to put in extra lines to show whether the note is on a line or in a space. For example, the highest C on this scale is on the second line above the musical staff.

NOTE-FINDER — REVIEW

Write the names of the notes in the places they go on the staff.



What note goes in the second space from the bottom? _____

What note goes on the middle line? _____

What note goes on the bottom line? _____

Label the notes with their correct letter names.



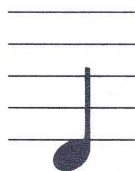
What is this series of eight notes, all in a row, called?

What do you notice about the names of the first and last notes?

What do we call the eight-note distance between notes that have the same name?

NOTE-FINDER — REVIEW

Name each of the following notes:





















LENGTH-MAKER — CONCEPTS

A note can have length. The length of a note tells you how long to hold or “sustain” the note. Some notes are short and some notes are long. The length of a note is counted by *beats*. You might tap your foot or clap your hands to show one beat.















You can tell the length of a note by what it looks like. The length of a note is called its note value. Let’s look at four note values, where a quarter note equals one beat:

	This is a whole note. It lasts for four beats.
	This is a half note. It lasts for two beats.
	This is a quarter note. It lasts for one beat.
	This is an eighth note. It lasts for half a beat.

You can add note values just like you add numbers. For example, if a quarter note has one beat, two quarter notes have two beats. A half note also has two beats. So you can say that the length of two quarter notes equals the length of one half note.

	+		=	
quarter note one beat		quarter note one beat		half note two beats

Now let’s add some other note lengths:

	+		=			
half note two beats		half note two beats		whole note four beats		
	+		=			
eighth note half beat		eighth note half beat		quarter note one beat		
	+		+		=	
half note two beats		quarter note one beat		quarter note one beat		whole note four beats
	+		+		=	
quarter note one beat		eighth note half beat		eighth note half beat		half note two beats

LENGTH-MAKER — CONCEPTS

Most tunes use more than one note length. The tune below has a fast part (written with short notes) and a slow part (written with long notes).



LENGTH-MAKER — REVIEW

Draw a whole note. _____

How many beats does it have? _____

Draw a half note. _____

How many beats does it have? _____

Draw a quarter note. _____

How many beats does it have? _____

Draw an eighth note. _____



How many beats does it have? _____


Which note is the shortest? _____




Which note is the longest? _____

LENGTH-MAKER — REVIEW


Add the note values:




	+		=	
quarter note	+	quarter note	=	_____
one beat	+	one beat	=	_____




	+		=	
half note	+	half note	=	_____
two beats	+	two beats	=	_____

	+		+		=	
quarter note	+	eighth note	+	eighth note	=	_____
one beat	+	half beat	+	half beat	=	_____

Now, label the notes, tell how many beats each one has, then add the note values:

	+		=	_____
_____		_____		_____
_____		_____		_____

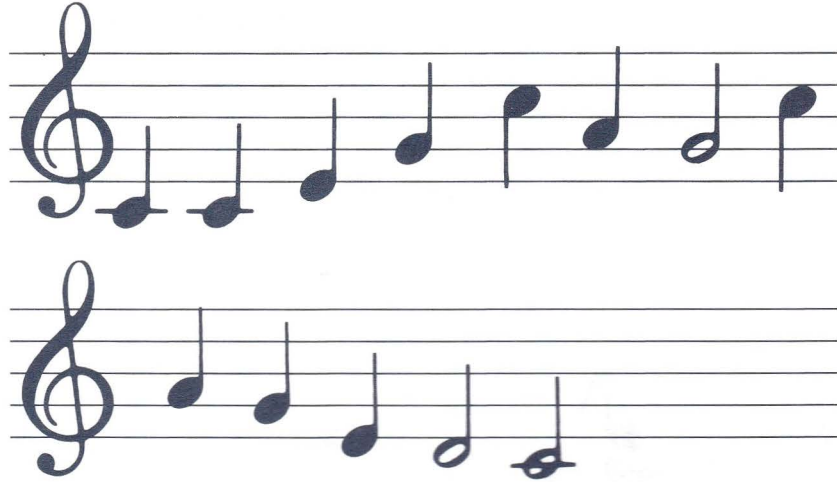
	+		+		=	_____
_____		_____		_____	=	_____
_____		_____		_____	=	_____

	+		+		=	_____
_____		_____		_____	=	_____
_____		_____		_____	=	_____

STONE MACHINE

When you know the notes and understand the note values, you can use the "STONE MACHINE" to play live music. Take some sheet music or one of the sample tunes below and play the notes using the "STONE MACHINE." You can also make up your own music.

SAMPLE 1



SAMPLE 2



TONE MACHINE — WRITE YOUR OWN MUSIC

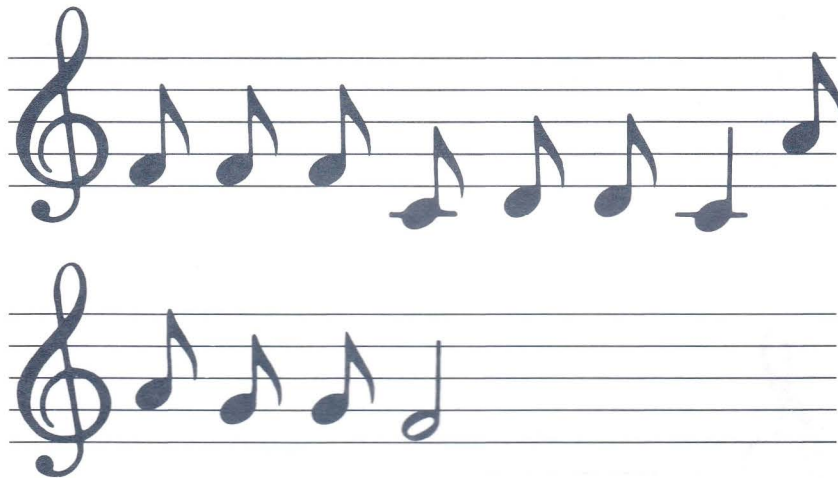
You can use this page to write down some of the tunes you create.



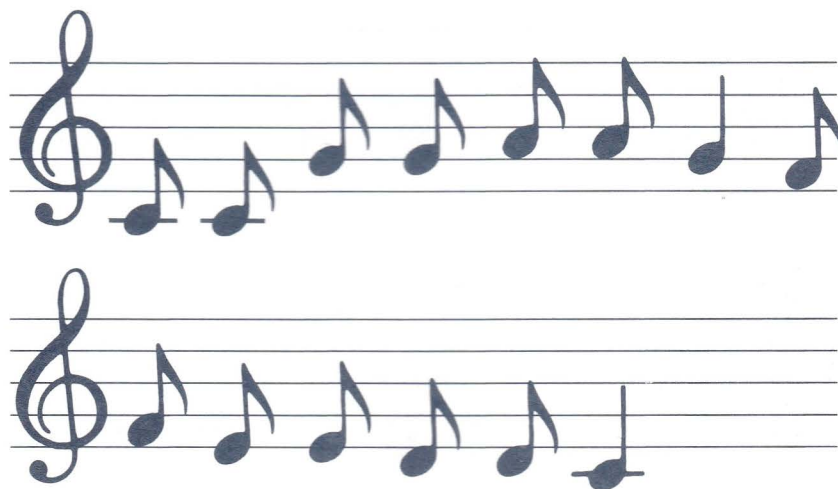
COPY A TUNE — CONCEPTS

A series of notes makes a tune. A tune is what you can sing or hum. The notes in a tune have different pitches and lengths. This is what makes music interesting and beautiful. If all the notes were exactly the same, music would not be very interesting. Here are some familiar tunes that you can copy and play back with “COPY A TUNE.”

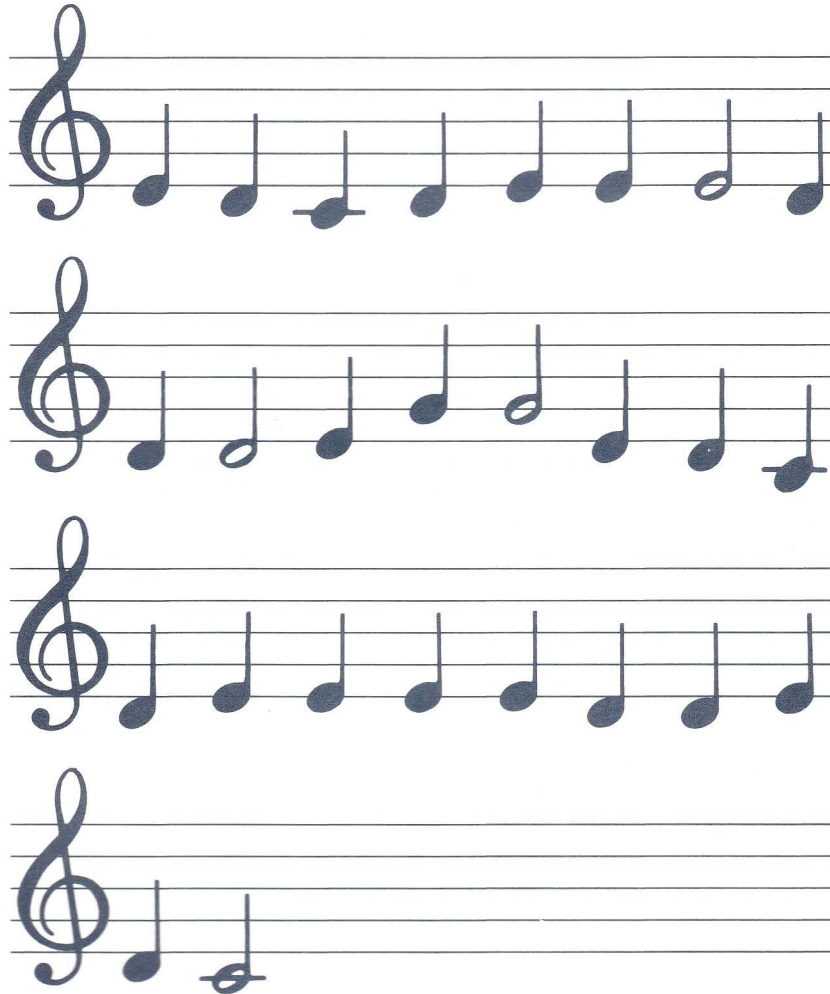
Old McDonald Had a Farm



Twinkle Twinkle Little Star



Mary Had a Little Lamb



COPY A TUNE — REVIEW

What is a tune?

Give some examples of tunes.

A. _____

B. _____

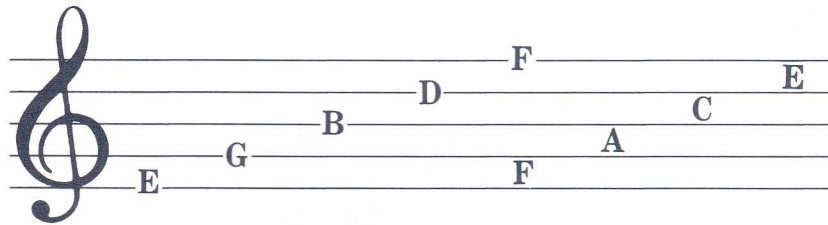
C. _____

What makes music interesting?

QUIZZES — CONCEPTS

Now let's take a look at what you have learned.

First we saw what the *musical staff* is and how it is used for writing music. The lines and spaces of the staff have been given names.



We also talked about *notes* and how they are used in writing music. Each note has a name which is the same as the note's location on the staff. These names tell you how high or low a note is. A note's highness or lowness is called its *pitch*.



In addition to pitch, notes also have length. The length of a note is called its *note value*. We measure note values by *beats*. We have looked at four note values:



Whole note — four beats






Half note — two beats

Quarter note — one beat

Eighth note — one half beat

QUIZZES — CONCEPTS

Note values can be added together to give other note values. Here are some examples:

	+		=			
quarter note one beat		quarter note one beat		half note two beats		
	+		=			
eighth note half beat		eighth note half beat		quarter note one beat		
	+		+		=	
quarter note one beat		eighth note half beat		eighth note half beat		half note two beats

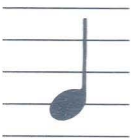
QUIZZES — REVIEW

Draw a musical staff and label the lines and spaces with their letter names.

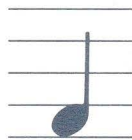
What do we write on a musical staff?

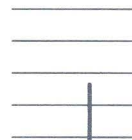
What does a note represent?

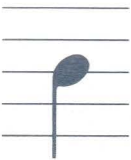
Name the following notes.





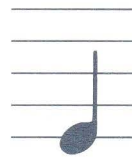

















What does note value tell you?



QUIZZES — REVIEW

Name these note values and tell how many beats each one has.




	_____	_____
	_____	_____
	_____	_____

Add the following note values:

	+		=	_____
_____		_____		_____

	+		=	_____
_____		_____		_____

	+		+		=	_____
_____		_____		_____		_____

	+		+		=	_____
_____		_____		_____		_____

What is a tune?

Why do we use different pitches and note values in music?

Appendix I:

MAKING A BACKUP COPY OF THE PROFESSOR PRESSNOTE'S MUSIC MACHINE PROGRAM

Using the Color Computer Tape System

It is a good idea to make a backup copy of the program cassette. The original cassette supplied with the program should be stored to protect it from damage. To make a backup copy, follow the steps below:

I. GETTING READY

- A. If the computer is off or the cassette tape recorder is not connected:
 1. Follow Steps 1 and 2 on page 6 of this manual.
 2. Skip to II.
- B. If the computer is on, the cassette tape recorder connected, and the Professor Pressnote's Music Machine program is loaded:
 1. If the program is running, terminate the program by pressing **SHIFT** **T**. You should see the "OK" prompt.
 2. When the "OK" prompt is showing, skip to III.
- C. If the computer is on, the tape recorder is connected, and a program other than Professor Pressnote's Music Machine is loaded:
 1. If the program is running, terminate the program by using the **BREAK** key or any special code that may apply to that particular program.
 2. When the "OK" prompt appears, turn the computer off. Wait a few seconds, then turn it back on.
 3. When the "OK" prompt appears again, you are ready to load Professor Pressnote's Music Machine program.

II. LOADING PROFESSOR PRESSNOTE'S MUSIC MACHINE

Using the original program tape, load the program into the computer following Steps 3 through 6 on pages 6 and 7 of this manual.

III. MAKING A NEW COPY OF THE PROGRAM TAPE.

- A. Place a blank cassette in the recorder. (Use only TRS-80 C-20 or C-10 certified cassettes, or other digital-quality cassettes.)
- B. Make sure the tape is rewound. Use the "FAST FORWARD" button if necessary to advance the tape past the leader.
- C. Press "PLAY" and "RECORD" at the same time until they lock.
- D. Type **C S A V E " P R O F "** and press **ENTER**. The recorder will start to run.
- E. Wait for the "OK" prompt to reappear. The recorder will stop automatically when the prompt appears.
- F. Rewind the cassette.
- G. Remove and label the cassette, which now contains a new copy of the Professor Pressnote's Music Machine program.

Using the Color Computer Disk System

It is a good idea to make a backup copy of the Professor Pressnote's Music Machine program diskette. The original diskette supplied with the program should be stored to protect it from damage. To make a backup copy, follow the "One Drive" or "Two Drive" instructions below.

One-Drive TRS-80 Color Computer Disk System

1. Make sure that the Color Computer is properly connected to the color television or color monitor. Before turning on any power, plug the Color Computer Disk Controller into the slot on the right side of the computer.
2. Turn on the color TV (or monitor) and the Color Computer system. (The computer's power switch is on the back left corner of the computer. The disk drive switch is on the back of the drive, in the upper corner.)
3. When you see the "OK" prompt, insert a new, blank diskette into the disk drive (square notch up and label facing to the right). Close the disk drive door.
4. With the blank diskette in the drive, type **D S K I N I 0** and press **ENTER**.
5. When the "OK" prompt reappears, remove the new diskette from the disk drive.
6. Place an adhesive tab (provided with new diskettes) over the square notch in the Professor Pressnote's Music Machine program diskette. (If you do not have any tabs, use a small piece of opaque tape.)
7. Insert the program diskette into the disk drive with the square notch up and the label facing right. Close the disk drive door.

8. Type **B A C K U P** **0** and press **ENTER**.
9. When you see the message, “**INSERT DESTINATION DISKETTE AND PRESS ENTER**”, remove the program diskette (called the “SOURCE” diskette) from the disk drive. Insert the new diskette that you used in Step 3 (the “DESTINATION” diskette) into the disk drive. Close the disk drive door. Finally, press **ENTER**.
10. When you see the message, “**INSERT SOURCE DISKETTE AND PRESS ENTER**”, remove the DESTINATION diskette from the disk drive, insert the program diskette, close the disk drive door, and press **ENTER**.
11. Continue to switch between the SOURCE diskette and the DESTINATION diskette as instructed by the computer. When the BACKUP process is complete, you’ll see the “**OK**” prompt reappear.

Two-Drive TRS-80 Color Computer Disk System

1. Make sure that the Color Computer is properly connected to the color television or color monitor. Before turning on any power, plug the Color Computer Disk Controller into the slot on the right side of the computer.
2. Turn on the color TV (or monitor), the Color Computer, and the disk drives. (The computer’s power switch is on the back left corner of the computer. The disk drive switch is on the back of the drive, in the upper corner.)
3. Insert a new, blank diskette into Drive 1 (the disk drive second from the Color Computer on the cable). Close the disk drive door.
4. With the blank diskette in the drive, type **D S K I N I 1** and press **ENTER**.
5. Place an adhesive tab (provided with new diskettes) over the square notch in the Professor Pressnote’s Music Machine program diskette. (If you do not have an adhesive tab, use a small piece of opaque tape.)
6. Insert the program diskette into Drive 0 (the disk drive closest to the Color Computer on the cable). Close the disk drive door.
7. Type **B A C K U P** **0** **T O** **1** and press **ENTER**.
8. The computer will copy the contents of the diskette in Drive 0 onto the diskette in Drive 1. When the BACKUP process is complete, you’ll see the “**OK**” prompt reappear.

Appendix II:

PLANNING YOUR APPLICATION

Appropriate Applications

There seems to be an endless variety of ways to use a computer with students. Some that are appropriate for the Radio Shack Professor Pressnote's Music Machine program are:

- A number of computers or "student stations" are placed in a special room or learning lab, where students attend scheduled sessions. A special teacher or teacher aide may be in charge of the lab to help students load and run specified programs, to record scores, and to help with operation of the system. This scheduled approach provides maximum computer utilization and makes possible the lowest obtainable cost per hour of usage.
- Individual computers are placed in regular classrooms, where they are available to the teacher for use with individual students at the teacher's discretion.
- Individual computers are loaned or "checked out" to students to take home and use to solve special assignments, or as an incentive for individual studies.
- Computers are provided for general student use in a library—during school and/or after school hours—for periods of time that a student can reserve in advance.
- Computers are provided for use by teachers at a central service center or audio-visual library. A teacher can check out a system for use in class.

There are numerous combinations of these and other uses that are possible. Your own unique circumstances—number of students, or number of computers available—will influence your plans. The following information is designed to help you in planning for the use of microcomputers in your school, and to give you the benefit of others' experience in developing a realistic and satisfactory installation in your own facility.

Saving and Loading Programs: Cassettes vs. Diskettes

The audio cassette is the least expensive method of saving and loading programs for a microcomputer. Due to its reasonable cost, the cassette recorder merits consideration for use as a program storage device in a classroom; it makes possible a low hardware cost per hour of student operation.

Under proper conditions, the cassette recorder can be a satisfactory storage medium for use with microcomputers. However, there are some special considerations that should be given before deciding on the cassette for program storage over another medium such as the diskette.

First, the quality of cassette tapes used for storage of computer programs (digital information) is more critical than for audio use. In addition, static electricity can damage information recorded on cassettes in a carpeted area, or in a dry climate. And, since a program stored on a cassette takes longer to load into a microcomputer than a similar program stored on a diskette, operational considerations may make the use of the cassette recorder for loading programs unrealistic in the classroom setting.

A Radio Shack Network 2 System

This system is a low-cost alternative to using cassette tapes to load student programs for the classroom. The Radio Shack Network Controller allows from one to sixteen TRS-80s to be connected to one TRS-80 disk system using the cassette ports. By using the central disk system, student programs can be saved on disk, and instructional programs can be loaded into the TRS-80 student stations from the central disk system conveniently and reliably. All sixteen student stations can be loaded simultaneously, or any combination of stations can be loaded at a time.

Second Alternative: A Disk Drive for Each Student Station

Although this increases the cost per student station, there are several advantages over a cassette. First, several programs can be stored on a single diskette and loaded into the computer conveniently by merely typing the program name to be loaded. In addition, no rewinding or tape positioning using an index counter is required with the diskette. And, most importantly, programs can be loaded from a diskette many times faster than from tape, making the diskette much more desirable from an operational standpoint. A program that requires a couple of minutes to load from a cassette can be loaded in a few seconds from a diskette.

Choosing a Location: Environmental Considerations

Large computer systems require temperature- and humidity-controlled environments with air filtration systems to eliminate dust and other contaminants. Fortunately, TRS-80 microcomputers are not so demanding. However, there are some considerations in the location you choose for your microcomputer that could have a direct effect on its operation and reliability. For best results, you should keep these in mind when choosing the location for your TRS-80.

Static Electricity

In dry climates and in certain seasons, you can walk across a carpet and feel the static discharge when you touch a metal object. Under some climatic conditions, even your clothing can build up this kind of charge, normally too small for you to feel. These static charges can damage magnetically-stored computer data, such as that on cassette tapes and diskettes. Larger charges can even wipe out your computer's memory or cause it to "lock up." If you are in a part of the country where the humidity is lower than about 40%, be wary. The ideal humidity level for the operation of a computer is 50% or above. The safest bet is to use a non-carpeted room for your computer. An anti-static floor mat at the computer operator's position can also help.

This is a rather infrequent problem in actual practice, so rest assured we are not trying to imply that you will have this or any of the other problems we have mentioned. We are simply explaining why the choice of your installation location should be given consideration, and what to do in case you do encounter a problem.

Power Line Interference

Any complex electronic equipment is sensitive to power line conditions affecting the voltage and current coming out of your wall socket. Computers are probably more sensitive than other electronics, because the loss of even one bit (one tiny electrical charge) of information can cause a program to fail or a data file to be lost. This is rarely a problem, unless you are operating in an environment which shares its power line with a lot of electrical machinery, particularly electrical motors. Yet you might experience trouble if an appliance or office machine has a defective switch which arcs when turned on or off. If this happens, you will have to (1) repair the appliance, or (2) isolate the power going to the computer by either (a) connecting the computer and peripherals to a separate line or (b) using a line filter. (TRS-80 Models III, 4, II, 12, 16 and 2000 have built-in line filters.) In a severe case, both (a) and (b) may be required. "Brownouts" (periodic drops in line voltage to unusually low levels) or "spikes" (transient surges of a very large voltage lasting only a fraction of a second) may require the addition to your system of a constant voltage transformer.

Power line problems are rare and many times can be avoided by proper choice of installation location for your computer system. The more complex the system, the more consideration you should give to your installation.

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