

## kindergarten lesson 3

This time we won't be discussing commands or punctuation. Instead let's talk about **compiling** and the nature of mac programs.

A **compiler** is a program used to convert your program text (code) into a free standing program. In Turbo Pascal you can check the syntax (the correctness of your program) without compiling it. You can also run it (which compiles the program and then presents you with what the program would look like and do if you had double clicked it from the desktop. Finally you can COMPILE it to disk. Doing this will generate a stand alone program that will show up on the desktop with a generic icon (the one with a hand writing on a page).

I know...you want to get on with it and do wonderful things in a program like graphics and windows and other goodies. Be patient. Remember this is only kindergarten and you are almost ready to graduate and go on to grade school. This is the last lesson in kindergarten so lets recap what you have learned.

You now know the following commands:

**begin**  
**read**  
**readln**  
**write**  
**writeln**  
**end**

You know about the general format of a program. You know about the **PROGRAM** name line, the **USES** line, the **CONST** line, the **VAR** line.

You know what a **variable** is and where to define it. You know what a **constant** is and where to define it too. You have seen how to generate a random number and know that certain punctuation is very important.

Just so you don't feel cheated about the kindergarten lessons, here are a few final things to remember. When you want to use an apostrophe or single quote sign (') in the context of a **write** or **writeln** statement you have to use two apostrophes ("). Don't confuse that with double quotes ("). Here is an example:

```
writeln (' What's your name?');           {invalid statement}
```

**writeln** (' What"s your name?'); {valid statement}

I can't tell you why, but it is necessary.

You have probably asked yourself if capitalization is necessary. In a word, NO. Pascal doesn't make any distinction between lower case and upper case letters.

Variables have a few rules about them.

1) Variables must be initialized before we can use them. In essence, we must give them their first value.

2) Variables can take the form of a number (**integer** or **real**), a **character**, or a string of characters (**str [93]**) .

3) Variables can be assigned the value of other variables (if they are the same type).

4) Variables can also be a value calculated by other constants or variables (assuming they are numeric).

This stuff is cake, isn't it? Kindergarten is over. You are now ready for the 1st grade. Things pick up a bit in the 1st grade. You will cover some more basic control statements and initializing variables.