GUIDED NOTES

Your First Program

Name: _____ Date: _____

Fill in the blanks as we go. Each day has its own word bank, and every answer is in it.

Day 1 — What a Program Is

Today you will learn what a program is and how `print()` shows text on the screen, one line at a time.

> **Word bank** code · line of code · output · parentheses · print() · program · Python · quote marks · run · string · top to bottom

Programs and code

A program is a list of steps for a computer.

A _____ is a list of steps that tells a computer what to do.

The steps are written as _____. It uses words and symbols that a computer can follow.

_____ is the language we use to write code. Each step goes on its own _____.

To _____ a program means to have the computer follow its steps.

Showing text

`print()` *shows text on the screen.*

```
1  print("Hello, Python!")
```

Output

```
Hello, Python!
```

_____ is a command that shows text on the screen.

The text goes inside the _____, the (and) marks after print.

A _____ is text inside _____, like `"Hello"`. The marks show where the text starts and stops.

When Python prints a string, it shows the text inside the quotes exactly as it's typed. The quote marks don't print.

What a program shows on the screen is its _____.

Top to bottom

Python runs the lines in order.

```
1  print("Wash the fruit.")
2  print("Cut the fruit.")
3  print("Put it in a cup.")
```

What prints?

Output

Python runs a program's lines in order, from _____.

Each `print()` shows its text on a new line of output. Three `print()` lines make three lines of output.

REMEMBER

A program is a list of steps. **`print()`** shows the text inside its quotes, one line for each **`print()`**, from top to bottom.

Day 2 — First Words in the Editor

Today you will learn how to write `print()` lines in a code editor, match an Example output exactly and explain code with comments.

> **Word bank** capital letter · Check · code editor · comment · exact output · Example output · file name · hash mark · punctuation · Run button · space

The code editor

You type code and run it in a code editor.

A _____ is a place to type code and run it. CodeGrove has one.

Your code is saved in a file. In CodeGrove, the _____ is `main.py`. The `.py` at the end means it's a Python file.

The _____ runs your code. Its output shows in the Output panel.

Exact output

Your output must match the Example exactly.

Each task shows an _____. It's what your program should print.

The _____ is every letter, space and mark a program prints.

A _____, like A, is not the same as a small letter, like a. Python prints each one exactly as it's typed.

Marks like a period, a comma or an exclamation point are called _____. They print too.

A _____ inside the quotes leaves a gap in the printed text.

In CodeGrove, _____ runs your code and tells you if the output matches. It is not your grade.

Comments

A comment is a note for people.

```
# A hello for the class
print("Hello, class!")
print("Today we write code.")
```

What prints?

Output

A _____ is a note in the code that explains it. Python skips this note, so it never prints.

A comment starts with a _____, the # symbol.

REMEMBER

Your output must match the Example exactly, with every capital letter, space and mark. A comment starts with #, and Python skips it.

Day 3 — Make a Sign

Today you will learn how an empty `print()` prints a blank line and how spaces and symbols inside quotes print exactly.

Word bank blank line · border · character · empty print() · layout · plan the output first · readable · section · spaces inside quotes · symbol

Blank lines

An empty `print()` prints a blank line.

```
print("SCIENCE FAIR")
print()
print("Gym")
print()
print("Saturday at 10")
```

What prints?

Output

A _____ is a line of output with nothing on it.

An _____ has nothing inside its parentheses. It prints a blank line.

Blank lines split a sign into parts, so it's _____, or easy to read.

Symbols and spaces

Every character inside the quotes prints.

```
print("* * * * * *")
print("  ART SHOW")
print("* * * * * *")
```

Output

```
* * * * * *
  ART SHOW
* * * * * *
```

A _____ is one letter, digit, space or mark.

A _____ is a mark like `*`, `-` or `=`. Inside quotes, it prints just like a letter.

A _____ is a row of symbols on the top or the bottom of a sign.

Any _____ print too. Two spaces before a word push it to the right.

Plan the layout

Plan the output before you write the code.

A sign's _____ is where each line goes.

A _____ is one part of a sign, like the title or the time.

To _____, write each line of the sign in order, with its blank lines. Then write one `print()` for each line.

REMEMBER

An empty **`print()`** prints a blank line. Every symbol and space inside the quotes prints exactly, so plan the output first.

Day 4 — Quotes and Careful Output

Today you will learn how to use a matching pair of quotes and why text with an apostrophe goes in double quotes.

Word bank apostrophe · blank line · comment · Double quotes · matching pair · output · print() · Python · Single quotes · text

Pairs of quotes

Quotes come in a matching pair.

_____ look like this: ". _____ look like this: '.

A string can use double quotes or single quotes. `print("Hi")` and `print('Hi')` both print Hi.

The quotes must be a _____, both double or both single. Quotes make text, so the words inside them print.

If a quote is missing, Python stops and shows a message. The program prints nothing until you fix it.

Apostrophes

Put text with an apostrophe in double quotes.

```
1  # A note for the class
2  print("Don't run in the hall.")
3  print()
4  print('Walk, please.')
```

Output

```
Don't run in the hall.

Walk, please.
```

An _____ is the mark in words like it's and don't. It looks just like a single quote.

Inside single quotes, an apostrophe ends the text too soon. Python stops and shows a message.

Inside double quotes, an apostrophe prints just fine.

Careful output

Check your output letter by letter.

Python prints the text inside the quotes letter by letter, exactly as it's typed.

A comment never prints, and an empty `print()` prints a blank line.

Before you turn in code, compare its output with the Example, one line at a time.

Read and check your code

Use these words to check a short program.

Quotes hold _____ that the program can print.

A _____ is a note for people. It never prints.

_____ is the language used for these programs.

The command _____ shows text on the screen.

An empty call makes a _____ between two printed lines.

A program's _____ is what it shows on the screen.

REMEMBER

A string uses a matching pair of quotes. Text with an apostrophe goes in double quotes, and the output must match the Example letter by letter.