

PYTHON KEYWORDS

1. What Is a Python Keyword?

A **keyword** is a reserved word that has a predefined meaning in Python. Keywords are part of Python's syntax and cannot normally be used as variable, function, or class names.

```
if      else    for      while   def      class   return  import
```

2. Keyword vs Identifier

Item	Meaning	Examples
Keyword	Reserved by Python	if, for, class, return
Identifier	Name chosen by programmer	student, age, total
Built-in function	Predefined function	print(), input(), len(), type()
Operator	Performs an operation	=, +, >=, ==

Remember: A keyword is defined by Python; an identifier is a name chosen by the programmer.

3. Can a Keyword Be Used as a Variable Name?

No. Using a keyword as a variable name causes a syntax error.

```
if = 10          # Invalid
class = "Python" # Invalid
student = 10     # Valid
```

4. How to Find Python's Keywords

Do not rely on a fixed keyword count. The safest approach is to let the Python installation you are using provide its keyword list.

```
import keyword
print(keyword.kwlist)

import keyword
print(len(keyword.kwlist))
print(keyword.kwlist)
```

Useful idea: keyword.kwlist gives the keyword list supported by the Python version being used.

5. How to Check Whether a Word Is a Keyword

```
import keyword
print(keyword.iskeyword("if"))
print(keyword.iskeyword("hello"))
```

```
True
False
```

- "if" → Python keyword
- "hello" → not a Python keyword

6. Keyword vs Built-in Function

Do not confuse keywords with built-in functions.

Name	Keyword?	What is it?
if	Yes	Keyword
for	Yes	Keyword
def	Yes	Keyword
print()	No	Built-in function
input()	No	Built-in function
len()	No	Built-in function
type()	No	Built-in function
range()	No	Built-in function

7. Practical Keyword-Checking Exercise

```
import keyword

words = ["if", "hello", "for", "student", "while", "print"]

for word in words:
    print(word, keyword.iskeyword(word))
```

Expected result:

```
if True
hello False
for True
student False
while True
print False
```

8. Quick Comparison with C, C++ and Java

The important point is to compare programming concepts, not just keyword counts.

Concept	C	C++ / Java	Python
Condition	if, else	if, else	if, elif, else
Loop	for, while	for, while	for, while
Function	function syntax	return type + syntax	def
Class	struct / C style	class	class
Exception	—	try, catch, finally	try, except, finally
Boolean	_Bool / conventions	true, false	True, False
Null-like value	NULL convention	nullptr / null	None
Import	#include	import/package	import, from

9. Quick Revision

- Keywords have predefined meanings.
- Keywords are reserved by Python.
- Keywords cannot normally be used as identifiers.
- Use keyword.kwlist to see the keyword list.
- Use keyword.iskeyword() to check a word.
- print(), input(), len(), type(), and range() are built-in functions, not keywords.
- Python keywords are case-sensitive.
- True, False, and None are Python keywords.
- Python's keywords and syntax differ from C, C++ and Java.

Final tip: Do not just memorize keywords. Learn what they do, recognize them in programs, and use Python itself to verify them.

Happy Coding! 🤖

