Noteable™

Printing Messages and Information

Using the Print function

Resource

Primary

7-11 years

Contents

Noteable Activities for Schools: Printing messages and information using Python

These resources are a guide for teachers to demonstrate to the whole class or direct individual students as appropriate. The activities below can be directly distributed to pupils.

For instructions on how to install and use Noteable resources, please look at our guides for teachers in GLOW: GLOW guidance for teachers to start using Noteable.

Content and Curriculum links

Level	Context	Indicators
7-11	Using the printing functions in Python to record information	Print, Markdown, List

Knowledge	Using bullet point lists to give instructions
Curriculum links (England) Computing KS2	• use sequence, selection, and repetition in programs; work with variables and various forms of input and output.
Curriculum links Wales)	
Scottish Curriculum for Excellence	**Experiences and Outcomes:** I can create, develop and evaluate computing solutions in response to a design challenge. **TCH 2-15a** **Benchmark:** ○ Creates programs in a visual programming language including variables and conditional repetition. ○ Identifies patterns in problem solving and reuses aspects of previous solutions appropriately for example, reuse code for a timer, score counter or controlling arrow keys.
All: Cross-curricular opportunities	The activities have identified opportunities for Literacy and Numeracy.

Printing in Python?

The Print function is an essential concept when introducing primary students to the world of coding. It allows us to display information on the computer screen. In simple terms, it's like telling the computer to show something to the user. Imagine it as a way to communicate with the computer, making it do what we want.

Displaying "Hello World"

To get started, we can show our young coders a simple example. Take a look at the code below:

```python
print("Hello World")
```

When this code is run, it will make the computer display the words **"Hello World"** on the screen. It's like a greeting from the computer itself!

Printing Messages Over Multiple Lines

Now, let's show our students that the Print function is not limited to just one line. We can make the computer say things that span across multiple lines, like this:

```python
print("Hello ")
print("from ")
print("the computer! ")
```

When we run this code, the computer will display each line one after the other. It's like the computer is talking in sentences.

Learning Through Video

To make learning even more engaging, you can use the video tutorials below:

Python - Display Messages Tutorial: https://youtu.be/9jY-Jz1pqrA

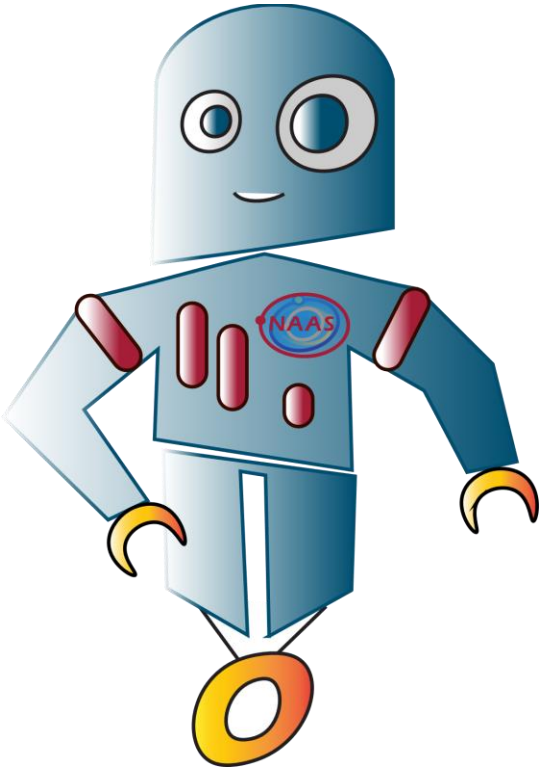
Python - Display Multi-Line Messages Tutorial: https://youtu.be/03uLv5bk0ik

Feel free to use and adapt this text as needed for your primary teaching purposes.

Activity 1

Your new robot friend would like the two of you to introduce each other properly.

The problem is that this robot does not have ears, so, you will need to communicate through coding. Don't worry, he will be guiding you through your Noteable activities and will help you to become a coding master, just like him!



Create a code cell that writes your full name on the screen. Your robot sent you a code showing his name in the example below. Follow the same example to let him know your name.

NOTE: Don't forget to type your text within double quotation marks. ""

Example

print("My name is Naas.")

Steps

1. Select Insert and Insert cell below.
2. Set cell type as Code.
3. Type: print("My name is...")
4. Select Run.

Activity 2

NAAS is very curious and just came across an interesting mug on your cupboard. Th mug has a message printed on it:

KEEP

CALM

and

DRINK

TEA

He loves the mug and would like you to write a code for him to print on his own mug. It should say:

KEEP

CALM

and

CODE

With

NAAS

Can you write a code cell that displays the multi-line message above?

NOTES:

- Type the words within 3 single quotes.
- Select enter where you want a new line.

Steps

1. Select Insert and Insert cell below.
2. Set cell type as Code.
3. Type:

   print('''KEEP

CALM

and

CODE

PYTHON''')

4. Select Run.

Activity 3

Python's Print command can be really helpful when we want to do math with our computer programs. But there's something important to remember: this time, we're working with numbers, not words. So, we don't use those "quotes" like we did before when printing words.

Let's give it a try together! Type in these print instructions and see what happens:

(1)

```python
print(5+3)
```

(2)

```python
print(10-2)
```

(3)

```python
print(4*6)
```

(4)

```python
print(16/2)
```

(5)

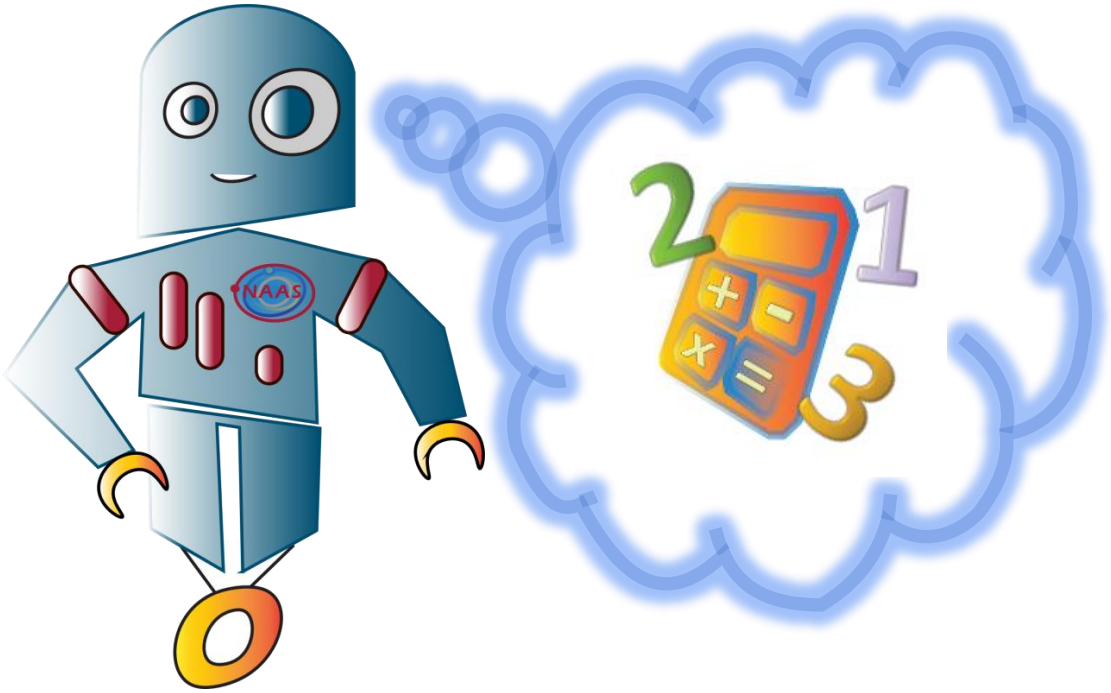
```python
print(7%3)
```

Please note: In Python, the **% operator** is like a machine that takes two numbers and returns the **remainder of the first number divided by the second number**.

For example, if you have 7 apples and you want to share them equally between 3 friends, each friend will get 2 apples and there will be 1 apple left over. The % operator is like a machine that tells you how many apples are left over. So, 7 % 3 is like asking the machine how many apples are left over when you share 7 apples equally between 3 friends. The answer is **2 with a remainder of 1**.

After you've typed these instructions and run them, you'll see how the computer can help us with math. It's like having a super smart calculator right on our screen!

Remember, no quotes this time, just numbers. Have fun exploring and trying out different math calculations with Python's Print command!



Now that you have tried the calculations above. Take turn trying different ones.

Work in pairs and write down a couple of calculations to your partner. He will need to tell you the correct result.

Cross-curricular opportunities

Incorporating Literacy:

You can make your lessons more exciting by integrating coding into your Literacy curriculum. Encourage your students to select a sequence of commands, express emotions, or even craft a short poem. You can tailor your coding activities to align with the literary concepts you've been exploring.

Exploring Numeracy:

Python offers a plethora of ways to enrich your Mathematics and Numeracy curriculum. Whether you're teaching addition, subtraction, multiplication, or division, Python can be a powerful tool. It enables students to visualize mathematical concepts and experiment with real-world problem-solving. Embrace the possibilities and leverage coding to make your numeracy lessons dynamic and interactive.

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