

**AP CSP Python with CodeX  
Defining Functions Activity Guide**

**Name:**

**Introduction from Slides** Discuss these concepts using your own words.

Function Answers will vary, but should be different from the slide.

Abstraction Answers will vary, but should be different from the slide.

How do you define a function in Python? def function\_name():  
[ block of indented code ]

How do you call a function in Python? function\_name()

**Example and Debugging Table**

Use this space to take notes about functions for Mission 3 Space for notes as needed

Use this space to document bugs you encounter while programming. As you create code, you will make mistakes. This is part of the learning process. Keep track of the mistakes in the table to the right. Doing so will help you become a more confident programmer. Add rows as needed.

Error message	Actual bug	How you fixed it
Table will be unique	for each student	

**Wrap-Up**

In your own words, what is abstraction? Answers will vary in the wrap-up, but they should be different from the information on the slides. Abstraction is the process of hiding details to focus on a few important things, or to reduce the essential characteristics. Not worrying about the details of a task, but on the task itself and when to accomplish it.

Give your own example of abstraction: Answers will vary in the wrap-up, but they should be different from the information on the slides. (washing dishes, driving a car, etc.)

In your own words, what is a function? Answers will vary in the wrap-up, but they should be different from the information on the slides. A function is a named block of code, or a named set of instructions that accomplishes a task.

When should you create a function? When you have repeated code, or when you want to call a block of code more than once.

What must you do to execute (or run) code in a function? A function must be called before its code is executed.

Give two benefits of using functions:

- Simplify code
- Make code easier to read and understand
- Eliminate duplicated code
- Make code adaptable to different values
- Allows you to easily change the order of sections of code
- Allows you to easily change the block of code in a function without having to search the code to find it (hide the details, abstraction).

Submit the modified **Pixels1\_functions** program to the teacher.