**Activity**

**For Loop**

# Example of a for loop iterating through a range of numbers

total\_sum = 0

for number in range(1, 6): # Iterate through numbers 1 to 5

 total\_sum += number

print("The sum of numbers 1 to 5 is:", total\_sum)

**Code Explanation:**

The for loop iterates through a sequence of numbers using the range() function, which generates a sequence of numbers from a starting value to an ending value (exclusive). It iterates through each number in the specified range and performs a set of statements for each iteration.

**While Loop**

# Example of a while loop iterating until a certain condition is met

total\_sum = 0

number = 1

while number <= 5: # Iterate while number is less than or equal to 5

 total\_sum += number

 number += 1 # Increment number for next iteration

print("The sum of numbers 1 to 5 is:", total\_sum)

**Code Explanation:**

The while loop iterates as long as a certain condition is true. In this case, it iterates while the value of number is less than or equal to 5. It performs a set of statements for each iteration and typically includes a statement to update the loop control variable (in this case, number += 1) to eventually terminate the loop.