BRAVERY + RESILIENCE + CREATIVITY + PURPOSE + RESPECT

CORE 4 REFERENCE

variables

The computer can store information for you

A variable is a location where a computer can store information. Variables have two parts: the **identifier**, which is the name used to identify the variable, and the **value**, which is the information it stores.

```python
name="Grace Hopper"
print(name)
```

loops

The computer can do repeated work for you

A loop is a set of instructions that will be repeated more than once. They can happen indefinitely, or a set number of times

```python
for i in range(3):
  print("Hello")
```

conditionals

The computer can make decisions for you

Conditionals use data and true/false commands to make decisions for you. They are most often structured as if statements or if/else statements.

```python
season="winter"
if season=="summer":
  print("Let's go swimming!")
else:
  print("It's too cold to swim")
```

functions

The computer can bundle commands and refer back to these bundles when you need them

A function is a set of commands that produces a specific action. Some languages have built in functions, such as `print( )` in Python, and move in Scratch. Most languages will also let programmers write their own functions. Programmers use functions to create a process that can easily be used and reused in their code, rather than writing out the process every time.

```python
def birthday(name):
  bday_msg="Happy birthday "+name+"!"
  print(bday_msg)

birthday("Reshma")
```