

Byte-Sized Brain Break

Coding Activity

How would you write a program to print the name of a number between 1 and 10 (ex. "nine"), given its numerical value (ex. 9)? You might have an **if statement** to check for each number. What about a number between 1 and 50? It might help to break the number into place values (1's place and 10's place) and have separate if statements for each place value. Can you modify your program to handle numbers up to 100? 500? How high can you go?

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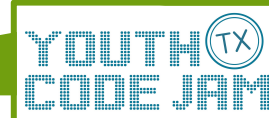
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Coding Activity

An **object** in coding represents one thing that has lots of information about it. One example is a Strawberry object. It may have characteristics like color, size, or weight. A Dog object may have characteristics like favorite toy, color, name, and age. If you made an object to represent your best friend, what characteristics might your Best Friend object have? Can you think of 5? 10? 20?

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Coding Activity

Camel case is a way programmers write variable names or functions. In camel case, all of the words in your variable or function name are smashed together, and the first letter of every word is capital except for the very first word. For example, if you have a variable you want to call "my favorite food", it would look like "myFavoriteFood" in camel case. Practice writing a few variable names of your own in camel case format!

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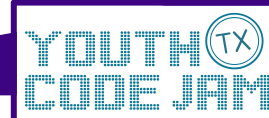
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Coding Activity

A **function** is a block of code that performs one specific task. Functions help organize your code and make it easier to do a task many times. A gardening program may have functions like waterThePlants(), pullOutWeeds(), or pickFruit(). What kinds of functions might a rock band program have? What about a cooking program?

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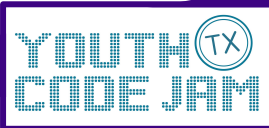
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Coding Activity

A tool is something that makes a task easier. Glasses make it easier to see. Alarms help us to get up on time. Programs are tools too. What are some examples of programs that make your life easier? Can you think of a program you could write to help someone else out?

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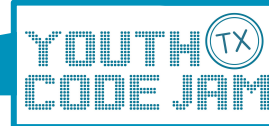
Coding Activity

In coding, a **while loop** is a structure that allows you to repeat a section of code as long as the loop condition is true. In the example below, the loop condition is "my friend is sneezing", and the code repeated is "Say 'bless you'."

```
while(my friend is sneezing)  
{ Say "bless you". }
```

Can you think of other times when you use a while loop?

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Coding Activity

```
if(person is looking at me)  
{  
  if(person is near me)  
  { Say, "Hello!" }  
}
```

Putting an if statement inside of another if statement is called **nesting**. You can nest as many if statements as you need. In the example above, the code will only say "Hello" if BOTH "person is looking at me" and "person is near me". Can you use nested if statements to create a bracket for your favorite sports league? (Hint: You might check which team won or lost!)

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Coding Activity

Create your own coding-inspired activity!
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