

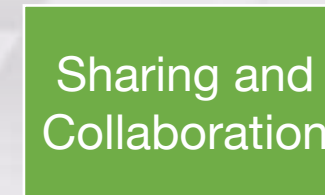
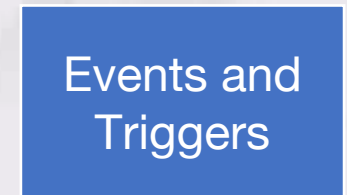
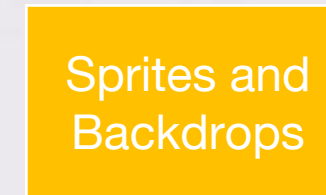
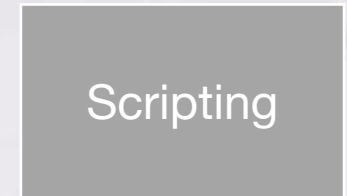
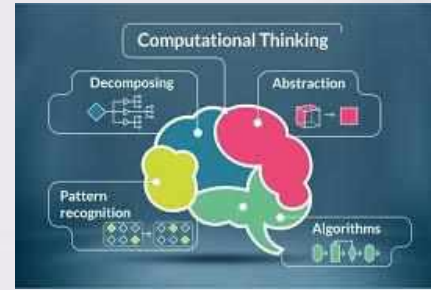
# Visual Programming for Computational Thinking

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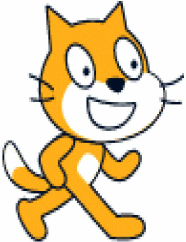
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# From Simple to More Complex

Let's explore the Scratch environment by changing the Stage backdrops.

Let's try to guess the meaning of the script structure by using the given



```
when green flag clicked
  forever loop
    if key right arrow pressed? then
      point in direction 90
      move 10 steps
```

Before: Guess & Discuss

Check & Confirm

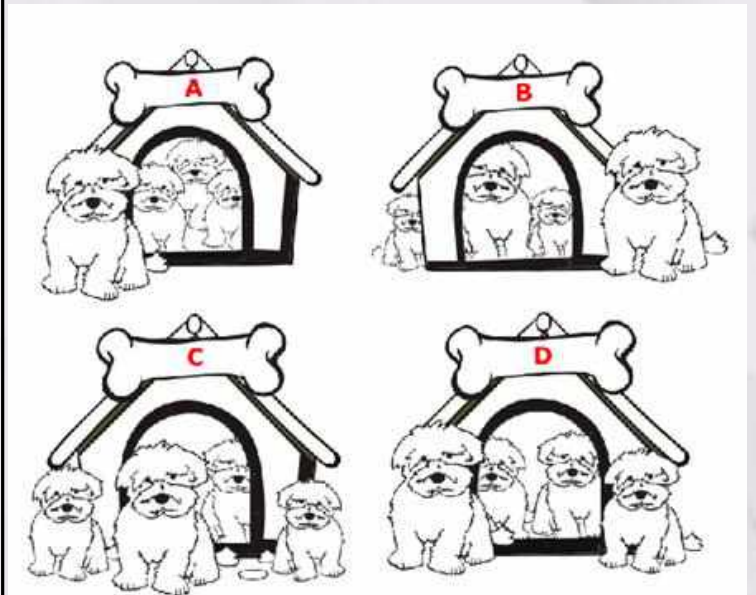
After: Change parameter & Command

For example,

```
when green flag clicked
  say Look at the picture! for 2 seconds
  ask How many dog inside the house? and wait
  repeat 10
    if answer = 1 then
      say Great, you are cool! for 5 seconds
    else
      say Incorrect, lets try again! for 5 seconds
```

If you add a repeat command, what will happen?

How to loop four times with changing the Stage backdrops and questions!



# Meet the highest value: Neighboring cell

Take a step to the neighboring cell with the highest number, but if there is no cell higher than the present cell, then stays there. Starting from where the number 2 is located.

2	1	3	5	6	3	3	4	3	0
10	3	2	2	7	4	5	5	4	2
11	13	2	3	4	9	10	3	14	13
21	3	20	4	4	19	5	15	4	3
22	4	4	20	5	25	6	16	25	5
30	24	5	18	6	25	6	6	19	4
32	4	6	16	6	17	6	6	4	4
2	4	26	15	12	19	27	35	25	15
32	34	36	37	38	10	47	41	35	14
38	44	35	8	39	28	29	38	18	13
11	4	4	6	40	38	9	10	11	12
0	0	3	4	41	8	8	5	4	2

Write scripts to compare 2 numbers.

```

when clicked
  ask Enter the first number and wait
  set a to answer
  ask Enter the second number and wait
  set b to answer
  ask Enter the third number and wait
  set c to answer

  if a > b or a = b and a >= c or a = c then
    say join The largest number is a for 2 seconds
  else
    if b > a or b = a and b >= c or b = c then
      say join The largest number is b for 2 seconds
    else
      say join The largest number is c for 2 seconds
  
```

Let's discuss and explain how to write scripts to compare more than 3 numbers.

Through the activity students are able to apply Computational Thinking Skills:

- Decomposition
- Pattern Recognition
- Abstraction
- Algorithm

Let's discuss how to write scripts to compare 3 numbers.