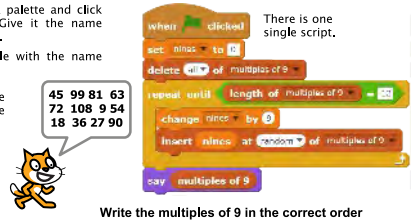
Card 16 Random List Multiples of 9 Year 6

Make the sprite say the first 12 multiples of 9 in random order.

multiples of 9	
1	45
2	99
3	81
4	63
5	72
6	108
7	9
8	54
9	18
10	36
11	27
12	90
+	length: 12

This is the list monitor

1. Open the Data palette and click *Make a List*. Give it the name **multiples of 9.**
2. Make a variable with the name **nines.**
3. Create the code you see on the right.



There is one single script.

To see the list monitor you must tick the check box beside the list reporter block.

The 'length' of a list means the number of 'items' in the list.

Write the multiples of 9 in the correct order

The cat's speech balloon and the list monitor show the multiples of 9 in a random order. Draw a table in your copybook and write out the numbers in the correct order. Create a similar script for other multiples.

Multiples of 9

X	1	2	3	4	5	6	7	8	9	10	11	12

Card 17 Fill a List from Input Year 6

Make a list of animal names from user input.

Problem
See Card 18

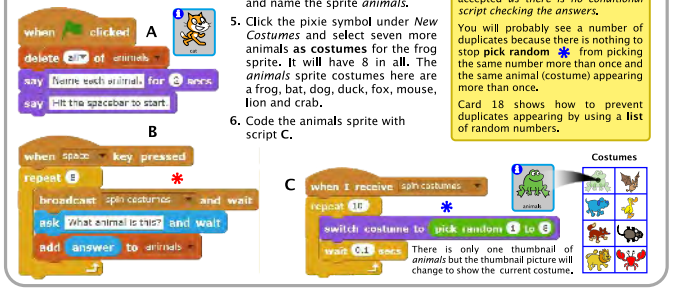
1. Create a list and give it the name *animals*.
2. Code the cat sprite with scripts **A** and **B** below.
3. When coding **B**, create a new **broadcast** message and name it *spin costumes*. *
4. Get the frog sprite from the library and name the sprite *animals*.
5. Click the pixie symbol under *New Costumes* and select seven more animals **as costumes** for the frog sprite. It will have 8 in all. The *animals* sprite costumes here are a frog, bat, dog, duck, fox, mouse, lion and crab.
6. Code the animals sprite with script **C**.

Duplication

Each time you input an answer in script B, your answer is added to the list of *animals*. If the list monitor is visible you will see the list grow to a maximum of 8 *list items*. Note that wrong answers and spelling errors are accepted *as there is no conditional script checking the answers*.

You will probably see a number of duplicates because there is nothing to stop **pick random** * when picking the same number more than once and the same animal (costume) appearing more than once.

Card 18 shows how to prevent duplicates appearing by using a **list** of random numbers.



Card 18 Make and Use a Random List Year 6

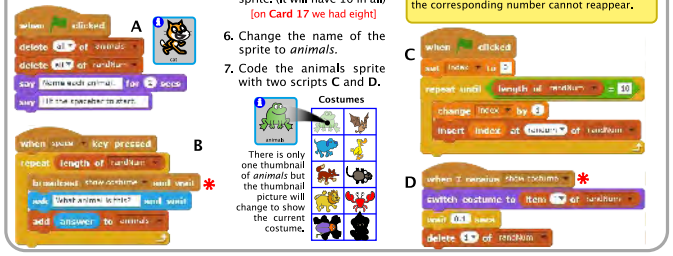
Use two lists in parallel to prevent duplicates appearing.

1. Create **two lists**, one with the name *animals*, the other with the name *randNum*.
2. Create one variable and name it *index*. index
3. Code the cat sprite with the following two scripts, **A** and **B**.
4. Create a new message and give it the name *show costume*. *
5. Get the frog sprite from the library. Choose nine more animals **as costumes** for the frog sprite. (It will have 10 in all) [on Card 17 we had eight]
6. Change the name of the sprite to *animals*.
7. Code the animals sprite with two scripts **C** and **D**.

No Duplication

Scripts **A** and **C** run when the green flag is clicked. **C** creates a list of *random numbers*. In script **B**, when you input the name of an animal, your **answer** is added to the list of *animals* in the same random order created in script **C**.

Script D pairs the *number of the costume* (a picture of an animal) with the first number of the *randNum* list. Once used, script D deletes that number from *randNum*. The costume with the corresponding number cannot reappear.



Card 19 Two Lists: Tables Test Year 6

Multiply one Random Number by Another.

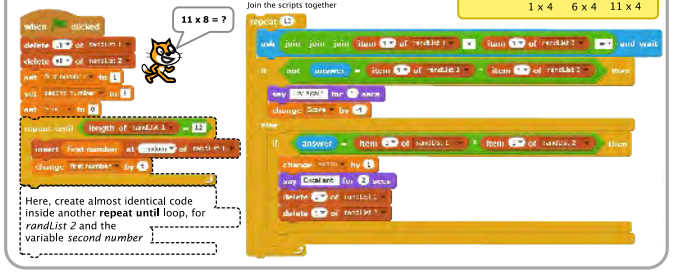
1. Create **two lists**, one with the name *randList 1*, the other with the name *randList 2*.
2. Create **two variables**, one with the name *first number* and the other *second number*.
3. Create a third **variable**, *Score*.
4. Use the cat sprite or get a sprite from the library.
5. Code the sprite with the following all as one script.

Times Tables Test

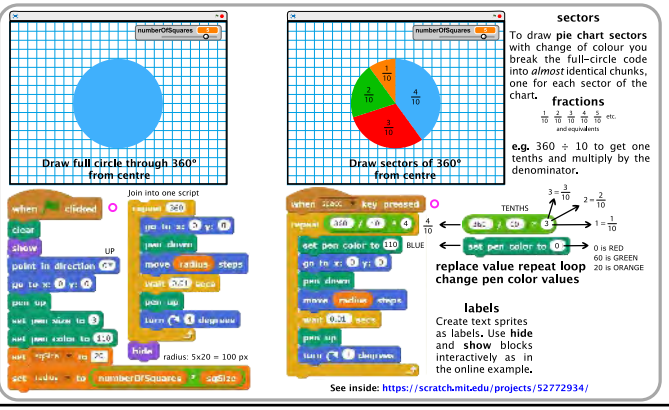
To create a multiplication tables test, you only need to make a few adjustments. You need one random list for the *first number* and a fixed number for the *second number*.

Example:

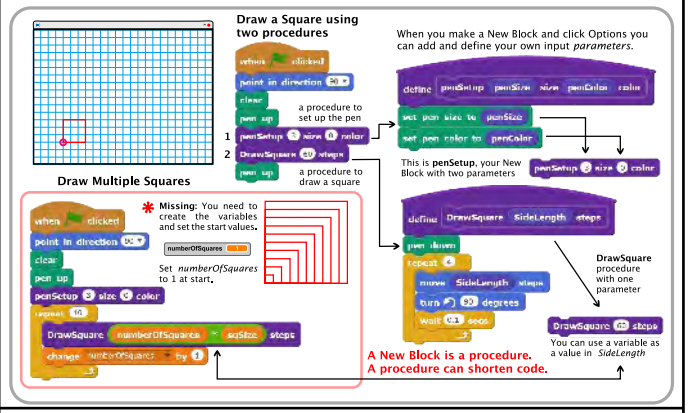
7 x 4	5 x 4	4 x 4
3 x 4	2 x 4	8 x 4
9 x 4	10 x 4	12 x 4
1 x 4	6 x 4	11 x 4



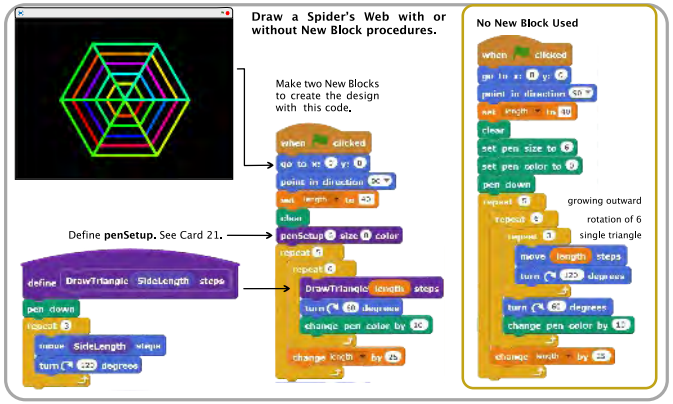
Card 20 Draw Pie Charts Year 6



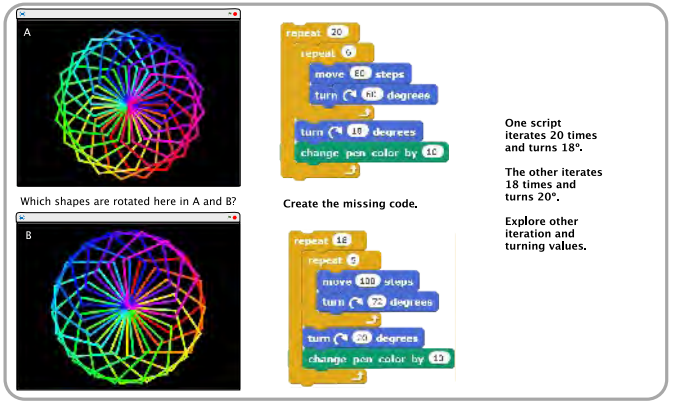
Card 21 More Blocks Define a Procedure Year 6



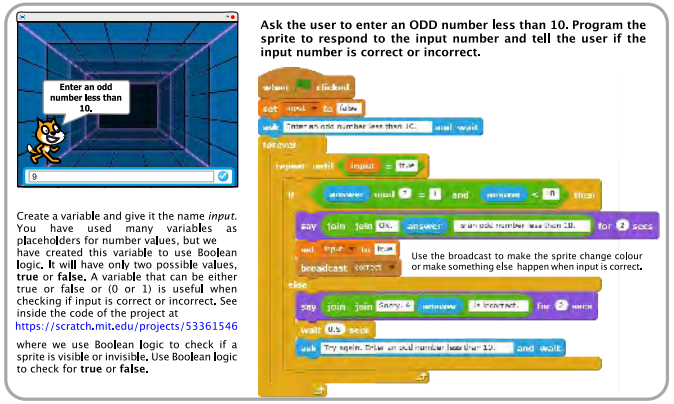
Card 22 Grow and Rotate Triangles Year 6



Card 23 Rotating Shapes Year 6



Card 24 Boolean Logic: TRUE or FALSE Year 6



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