



Advanced Blocks & Game Creation

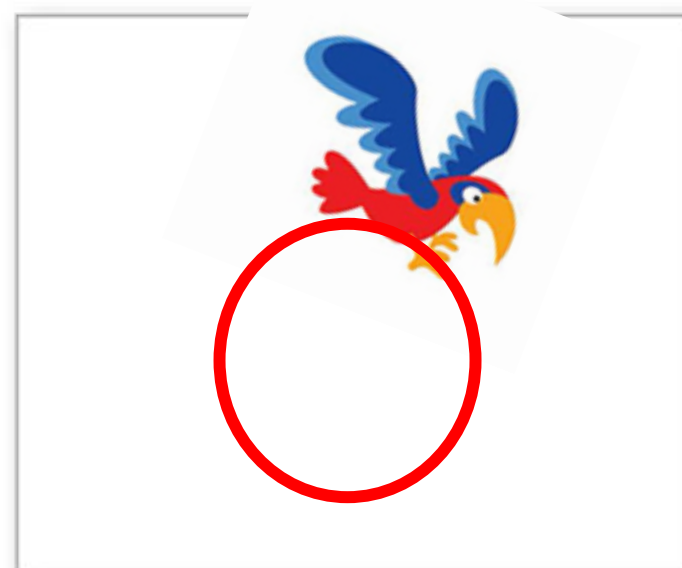
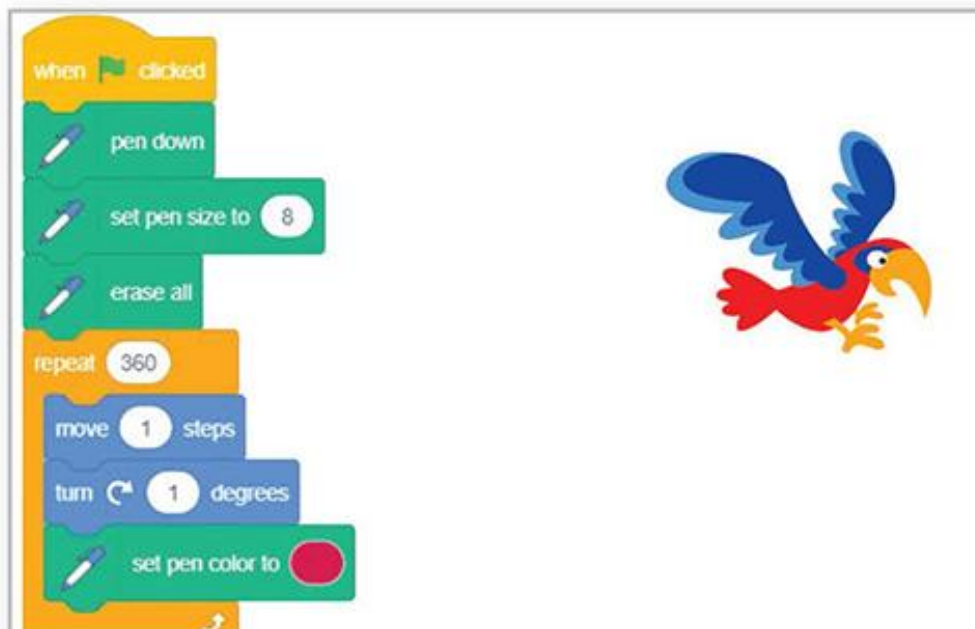
PG-80

Learning Outcomes

- ✓ Blocks Shapes in Scratch
- ✓ Variables
- ✓ Creating a Game
- ✓ Sensing Blocks
- ✓ Conditional Blocks

• LET'S RECAP ▶ •

See the given code and draw the output.



Let us learn more about Scratch.



Critical Thinking
Technology Literacy



QUEST



PG-83

Answer the following questions.

1. Which block is used to make the penguin ask question?

ask and wait block

2. Which block checks if the chosen key is pressed by the user?

key pressed?

3. What are CAP blocks?

The blocks that end scripts are known as CAP blocks.

4. Which blocks are C-shaped?

C blocks are loop blocks to check if a condition is true in the blocks within the loop.

EXERCISE

PG-89

A. Tick (✓) the correct option.

1. Which block always comes at the top of a script?

(i) C block

☐

(ii) Boolean block

☐

(iii) Hat Block

☒

(iv) None of these

☐

2. Which variable can be used and modified by all the sprites?

(i) Global variable

☒

(ii) Local variable

☐

(iii) Both (i) and (ii)

☐

(iv) None of these

☐

3. C blocks are called _____ blocks.

(i) Wrap

☒

(ii) Big

☐

(iii) Cute

☐

(iv) Small

☐

4. How many types of block shapes are there in Scratch?

(i) Five

☐

(ii) Six

☒

(iii) Seven

☐

(iv) None of these

☐

B. Fill in the blanks using the words given below.

★ Local ★ Touching color ★ Ask and Wait ★ Script

1. A **SCRIPT** is made up of a number of blocks.
2. You can use **TOUCHING COLOUR** block to check if the sprite touches the colour chosen in the block.
3. If a variable is created to be used and modified by a single sprite only, then it is known as a **LOCAL** variable.
4. The **ASK AND WAIT** block prompts the user to type the input using the keyboard.

C. State whether these statements are true or false.

1. Stack blocks have a notch on the top and a bump at the bottom.
2. Variables are used in programs to store and modify the data.
3. CAP blocks are present in the Operators block category.
4. We cannot create our own variables in Scratch.

TRUE

TRUE

FALSE

FALSE

D. Answer the following questions:

1. Write down the names of six types of blocks.

Ans: The six blocks are: Hat, Stack, Boolean, Reporter, C, and Cap.

2. What is a sensing block?

Ans: The sensing blocks in Scratch sense the input from the keyboard or the mouse at the time of execution of a script.

3. How many types of variables are there in Scratch?

Ans: There are two types of variables. They are: Global Variables and Local Variables.

4. What are the two types of conditional blocks? ^{Name} ~~Explain~~ them.

Scratch has two conditional blocks.

1. If, then block 2. If, Then.....Else

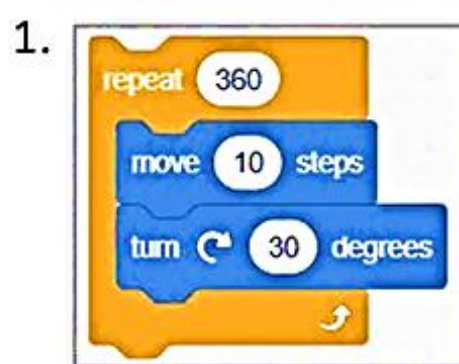


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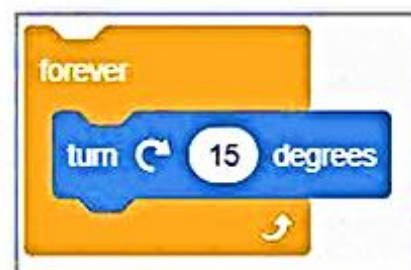


Critical Thinking
Technology Literacy

A. What will the sprite do in the given blocks?



1. The sprite will rotate 360 times. Each time it will turn at 30 degree and move 10 steps.



2. The sprite will turn 15 degrees. It will keep on moving till user stops the program.

B. Open Scratch. Create a script using sensing block and conditional block where a penguin ask questions to a bear.



Computer Genius-V

Competency-based/Application-based questions

Experiential Learning
Information Literacy

1. Your friend wants to create a project in which he wants the user to type his/her age. Which blocks should he use? **Ans 1. ask and wait block**
2. Rati wants the sprite in her project to say 'ouch' when it touches the mouse pointer. Which blocks should she use? **Ans 2. touching the mouse-pointer? and say block**

LAB ACTIVITY



Computational Thinking

Create the given script for two sprites. Change the backdrop to **Party**. See what happens when you run the script.

Leadership & Responsibility
Initiative

TECH VALUE

Do not copy program which belongs to someone else. This is called data theft.