

7 STAGE

ESCAPE THE MAZE!

★ Chapter Objective

Learn how to design an interactive maze with a guard, booby traps, and treasure!

The Game

Guide Scratchy through the maze and into the treasure room to collect the Magic Gem. and then safely escape!

1 * Download file "Scratch Stage 7" → **Scratch Stage 7**

2 Click "Indy-Cat" Scratchy →

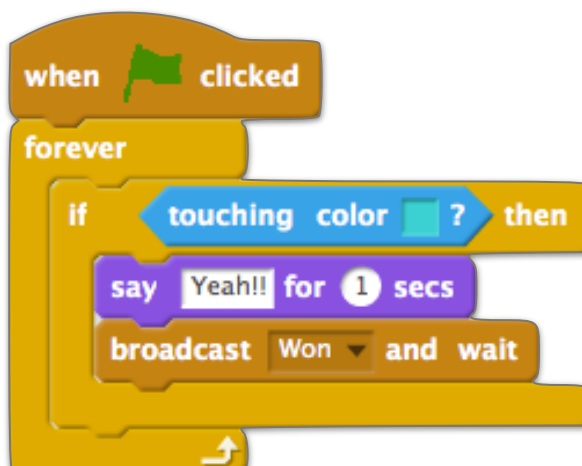


3 Create a script to give players instructions when the game starts.



4 Create a program to end the game:

- When Scratchy touches the color **Blue** he will say "Yeah!!" and the "You Won" screen will broadcast



5

Create a script to control the starting point & movements of Scratchy.

Sets the

- Starting Point
- Starting Angle

When the up arrow is pressed, Scratchy will move 3 pixels upward

If Scratchy touches the color Orange the computer is telling him to move -3.

**Notice how the edge of ALL the walls are Orange. If Scratchy bumps into the wall we want him to stop moving.

$$3 + (-3) = 0$$

So, if Scratchy touches a wall he will move 0 spaces!

```
when green flag clicked
  point in direction 90
  go to x: -205 y: 150
  go to front
  go back 1 layers
  forever loop
    if key up arrow pressed? then
      change y by 3
    if touching color Orange? then
      change y by -3
    if key down arrow pressed? then
      change y by -3
      if touching color Orange? then
        change y by 3
    if key left arrow pressed? then
      point in direction -90
      change x by -3
      if touching color Orange? then
        change x by 3
    if key right arrow pressed? then
      point in direction 90
      change x by 3
      if touching color Orange? then
        change x by -3
```

6

Create a script make Scratchy return to the Starting Point if he touches: Turnstile, Whiptail, Wall_L, Wall_R or the Stone.

```
when green flag clicked
  wait 1 secs
  forever
    if touching Turnstile ? or touching Whiptail ? or touching Wall_L ? or touching Wall_R ? or touching Stone ? then
      say Oh!
      play sound Cat
      glide 1 secs to x: -205 y: 150
      say [ ]
```

7

Click "Whiptail" Sprite



8

Create a script to control the **Size**, **Starting Point**, and **movements** of Whiptail.

- The **Glide blocks** tell Whiptail run back & forth in the maze in a pattern.

```
when green flag clicked
  set size to 40 %
  go to x: -195 y: -145
  forever
    point in direction 90
    glide 5 secs to x: 180 y: -145
    wait 2 secs
    point in direction -90
    glide 5 secs to x: -195 y: -145
    wait 2 secs
```

9

Click "Turnstile" Sprite



10

Create a script to **control** the **Starting Point** and **Direction** of the Turnstile.

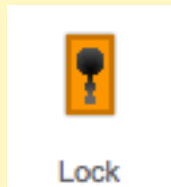
- The **Turn 10 degrees** block tells the Turnstile to spin.

```

when green flag clicked
  go to x: -195 y: -30
  point in direction 90
  go to front
  forever
    repeat 9
      wait 0.5 secs
      turn 10 degrees
  
```

11

Click "Lock" Sprite



12

Create a script to set the **Starting Point** of the Lock

```

when green flag clicked
  go to x: 229 y: -143
  
```


13

Click "Key" Sprite



Key

14

Sets the **Starting Point**

```

when clicked
  go to x: 220 y: 0
  show
  
```

Play a **Sound Effect** when Scratchy touches the key

```

wait until touching Indy-Cat ?
  play sound AfroString
  
```

The Key will **follow** Scratchy as he moves throughout the maze

```

forever
  go to Indy-Cat
  
```

If the Key **touches** the lock, it will:

- play a sound
- broadcast "Gate Open"
- and then **hide/disappear**

```

if touching Lock ? then
  play sound AfroString
  broadcast Gate Open
  hide
  
```

15

Click "Gate" Sprite



Gate

16

Create a script to set the **Starting Point** of the Gate

```

when clicked
  go to x: 69 y: -70
  
```

17

Create a script to play a **Sound** when the Gate Opens

```

when I receive Gate Open
  play sound DirtyWhir
  
```

18

Create a script to make the gate **Glide out of the way** when the Gate Opens

```

when I receive Gate Open
  think Gate Opened!! for 1 secs
  glide 2 secs to x: 69 y: 0
  
```

19

Click "Magic Gem" Sprite



Magic Gem

20

Create a script to make the Gem Change Colors

```

when green flag clicked
  clear graphic effects
  forever loop
    change color effect by 25
  
```

21

Create a second script to tell the Gems:

- Starting Point
- Play Sound, when Scratchy touches it
- Say, "Gem Obtained!!"
- Broadcast "Stone", the last trap of the game

```

when green flag clicked
  go to x: -42 y: -48
  show
  wait until touching Indy-Cat
  play sound Fairydust
  think Gem Obtained!! for 1 secs
  broadcast Stone
  hide
  
```

22

Click "Wall_L" Sprite



Wall_L

23

Create a script to set the Starting Point of the Wall_L Sprite

```

when green flag clicked
  go to x: -48 y: 67
  
```

24

Click "Wall_R" Sprite



25

Create a script to set the Starting Point of the Wall_R

```

when clicked
  go to x: 67 y: 67

```

26

Create a script to program how the Right Wall moves

- The Wall **waits until** it receives "Stone" before it starts moving.
- The Wall glides back & forth, to create a closing trap.

```

when I receive Stone
  forever
    glide 2 secs to x: -34 y: 67
    glide 2 secs to x: 67 y: 67
    wait 2 secs

```

27

Click "Stone" Sprite



28

Create a script to:

- set the **Starting Point** of Stone
- and **glide down** the ramp

```

when I receive Stone
  forever
    go to x: -39 y: 146
    show
    glide 4 secs to x: 206 y: 146
    hide

```

29

Create a script to make the Stone **Rotate**.

- * This makes the Stone appear to realistically roll.

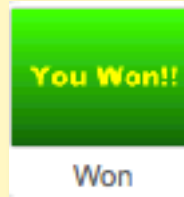
```

when clicked
  hide
  forever
    turn 10 degrees

```

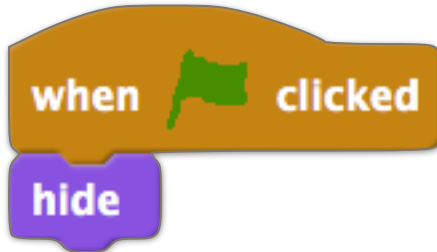
30

Click "Won" Sprite



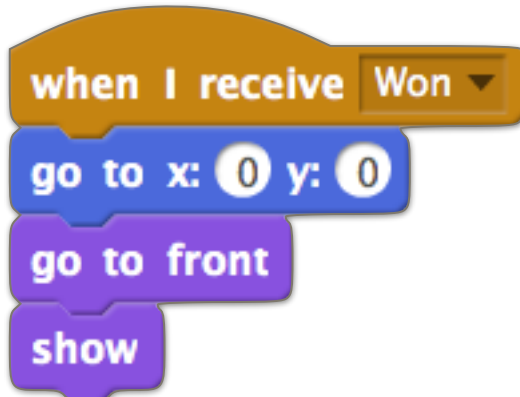
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Create a script to set the Win Screen to **hide** when the game starts



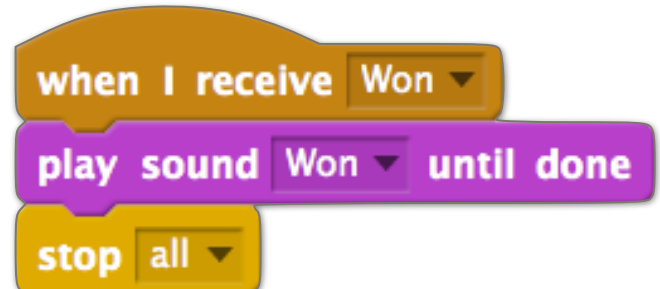
32

Create a script to **show the "Win" screen ONLY** when the script receives the "Won" message.



33

Create a script to **play a sound effect AND to Stop All other scripts** when the game is won.



You just created a dangerous maze,
Help Scratchy capture the Magic Gem and escape it!!!