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1. Car Movement Code (Motion - Blue, Control - Orange, Events - Yellow, Looks - Purple)

when [flag] clicked // Yellow (Events)

go to [random position] // Blue (Motion)

forever // Orange (Control)

if <key [up arrow] pressed?> then // Orange (Control)

change y by (10) // Blue (Motion)

end

if <key [down arrow] pressed?> then // Orange (Control)

change y by (-10) // Blue (Motion)

end

if <key [right arrow] pressed?> then // Orange (Control)

change x by (10) // Blue (Motion)

end

if <key [left arrow] pressed?> then // Orange (Control)

change x by (-10) // Blue (Motion)

end

if <touching [edge] ?> then // Orange (Control)

say [I have reached the Target] // Purple (Looks)

end

---

2. Fade-In Effect Code (Looks - Purple, Events - Yellow, Control - Orange)

when [flag] clicked // Yellow (Events)

set [ghost] effect to (100) // Purple (Looks)

repeat (10) // Orange (Control)

change [color] effect by (-10) // Purple (Looks)

wait (0.1) seconds // Orange (Control)

end

---

3. Fade-Out Effect Code (Looks - Purple, Events - Yellow, Control - Orange)

when [flag] clicked // Yellow (Events)

set [ghost] effect to (0) // Purple (Looks)

repeat (10) // Orange (Control)

change [color] effect by (10) // Purple (Looks)

wait (0.1) seconds // Orange (Control)

end

---

4. Coke Bottle Emptying Code (Motion - Blue, Control - Orange, Events - Yellow, Sound - Pink)

when [space] key pressed // Yellow (Events)

repeat (10) // Orange (Control)

turn [clockwise] (15) degrees // Blue (Motion)

wait (0.1) seconds // Orange (Control)

end

repeat (10) // Orange (Control)

turn [counter-clockwise] (15) degrees // Blue (Motion)

wait (0.1) seconds // Orange (Control)

end

play sound [Meow] until done // Pink (Sound)

---

5. Bouncing Ball Code (Motion - Blue, Control - Orange, Events - Yellow, Operators - Green)

when [flag] clicked // Yellow (Events)

go to [random position] // Blue (Motion)

point in direction (45) // Blue (Motion)

forever // Orange (Control)

move (10) steps // Blue (Motion)

if <touching [edge] ?> then // Orange (Control)

turn (pick random (150) to (210)) degrees // Blue (Motion), Green (Operators)

end

---

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1. Design a Scratch application for Rainfall

Code:

(Yellow) When [Green Flag] clicked

(Orange) Forever

(Orange) Create clone of [myself]

(Orange) Wait [0.2] seconds

(Yellow) When I start as a clone

(Blue) Go to x: (Pick random [-240] to [240]), y: [180]

(Blue) Set size to [100%]

(Orange) Repeat until [y = -180]

(Blue) Change y by [-5]

(Orange) Wait [0.05] seconds

(Yellow) When [Green Flag] clicked

(Pink) Play sound [Pop] until done

---

2. Design a Scratch application for Smoke Effect

Code:

(Yellow) When [Green Flag] clicked

(Orange) Forever

(Orange) Create clone of [myself]

(Orange) Wait [0.2] seconds

(Yellow) When I start as a clone

(Blue) Go to x: (Pick random [-240] to [240]), y: [180]

(Blue) Set size to (Pick random [50] to [100]%)

(Orange) Repeat until [y = 180]

(Blue) Change y by [5]

(Blue) Change size by [1]

(Purple) Set ghost effect to (Pick random [2] to [50])

(Orange) Wait [0.05] seconds

(Orange) Delete this clone

---

3. Design a Scratch application for a Balloon Effect

Code:

(Yellow) When [Green Flag] clicked

(Orange) Forever

(Orange) Create clone of [myself]

(Orange) Wait [2] seconds

(Yellow) When I start as a clone

(Blue) Set x to (Pick random [1] to [3])

(Blue) Set y to [-180]

(Orange) Repeat until [y = 180]

(Blue) Change y by [5]

(Orange) Wait [0.1] seconds

(Orange) Delete this clone

(Yellow) When this sprite clicked

(Pink) Play sound [Pop] until done

---

4. Design a Scratch application for a Dancing Doll

Code:

(Yellow) When [Green Flag] clicked

(Orange) Forever

(Purple) Next costume

(Orange) Wait [0.2] seconds

(Yellow) When [Green Flag] clicked

(Orange) Forever

(Blue) Change x by [10]

(Orange) Wait [0.2] seconds

(Blue) Change x by [-10]

(Orange) Wait [0.2] seconds

---

5. Design a Scratch application for a Sparrow Jumping Game

Code:

(Yellow) When [Green Flag] clicked

(Blue) Go to x: [-200], y: [-100]

(Orange) Set [isJumping] to [False]

(Yellow) When [Space key] pressed

(Orange) If [not isJumping] then

(Orange) Set [isJumping] to [True]

(Orange) Repeat [10]

(Blue) Change x by [10]

(Orange) Wait [0.05] seconds

(Orange) Repeat [10]

(Blue) Change x by [-10]

(Orange) Wait [0.05] seconds

(Orange) Set [isJumping] to [False]

---

6. Design a Scratch application for Catching Apples in a Bowl

Code:

(Yellow) When [Green Flag] clicked

(Blue) Go to x: [0], y: [-140]

(Orange) Forever

(Orange) If [Left arrow key] pressed then

(Blue) Change x by [-10]

(Orange) If [Right arrow key] pressed then

(Blue) Change x by [10]

(Yellow) When [Green Flag] clicked

(Orange) Forever

(Blue) Set x to (Pick random [-240] to [240])

(Blue) Set y to [180]

(Orange) Repeat until [y = -140]

(Blue) Change y by [-5]

(Orange) Wait [0.05] seconds

(Orange) If [touching Bowl] then

(Orange) Change Score by [1]

(Orange) Else

(Orange) Change Lives by [-1]

(Yellow) When [Green Flag] clicked

(Orange) Set Score to [0]

(Orange) Set Lives to [0]

---

1. Mouse Trail

(Events - Yellow) When green flag clicked

(Control - Orange) Forever:

(Control - Orange) Create clone of myself

(Motion - Blue) Go to mouse-pointer

(Control - Orange) Wait 0.1 seconds

---

2. Virtual Town

(Events - Yellow) When green flag clicked

(Control - Orange) Forever:

(Control - Orange) If (Sensing - Light Blue) right arrow key pressed → (Motion - Blue) Change x by 10

(Control - Orange) If (Sensing - Light Blue) left arrow key pressed → (Motion - Blue) Change x by -10

(Control - Orange) If (Sensing - Light Blue) up arrow key pressed → (Motion - Blue) Change y by 10

(Control - Orange) If (Sensing - Light Blue) down arrow key pressed → (Motion - Blue) Change y by -10

(Events - Yellow) When this sprite clicked

(Looks - Purple) Say "Hello! I am Sprite...!!" for 2 seconds

---

3. Virtual Pet

(Events - Yellow) When green flag clicked

(Variables - Orange) Set Happiness to 50

(Variables - Orange) Set Hunger to 50

(Variables - Orange) Set Health to 100

(Events - Yellow) When this sprite clicked

(Variables - Orange) Change Hunger by -10

(Variables - Orange) Change Happiness by 5

(Control - Orange) If (Operators - Green) Hunger = 0 → (Variables - Orange) Set Hunger to 0

---

4. Clicker Game

(Events - Yellow) When green flag clicked

(Variables - Orange) Set my variable to 0

(Events - Yellow) When this sprite clicked

(Variables - Orange) Change Points by 1

---

5. Day and Night Mode

(Events - Yellow) When green flag clicked

(Looks - Purple) Switch backdrop to next backdrop

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1. Dancing Girl with Background Music

Code:

Yellow: when [flag] clicked

Orange: forever

Purple: next costume

Orange: wait (0.2) seconds

Yellow: when [flag] clicked

Blue: go to x: (0) y: (0)

Orange: forever

Blue: change x by (10)

Orange: wait (0.2) seconds

Blue: change x by (-10)

Orange: wait (0.2) seconds

Yellow: when [flag] clicked

Pink: play sound [pop] until done

---

2. Story with Two Sprites & Backgrounds

Sprite 1 Code:

Yellow: when [flag] clicked

Purple: switch backdrop to [Soccer]

Purple: say "Hello! My name is Alex..!" for (2) seconds

Orange: wait (2) seconds

Purple: say "I'm waiting for my friend to join me" for (2) seconds

Sprite 2 Code:

Yellow: when [flag] clicked

Orange: wait (6) seconds

Purple: switch backdrop to [Basketball 1]

Purple: say "Hello! My name is Alex..!" for (2) seconds

Orange: wait (2) seconds

Backdrop Code:

Yellow: when I receive [message1]

Purple: switch backdrop to [Soccer]

---

3. Moonrise After Sunset

Sun Code:

Yellow: when [flag] clicked

Purple: switch backdrop to [Blue Sky]

Blue: go to x: (0) y: (150)

Blue: glide (5) secs to x: (0) y: (-150)

Purple: switch backdrop to [Space]

Moon Code:

Yellow: when [flag] clicked

Blue: go to x: (0) y: (-150)

Orange: wait until [Blue Sky] = [Space]

Blue: glide (5) secs to x: (0) y: (100)

---

4. Run a Race

Code:

Yellow: when [flag] clicked

Blue: go to x: (0) y: (-100)

Blue: point in direction (90)

Orange: forever

Sensing (light blue): if [key (right arrow) pressed?] then

Blue: turn (10) degrees

Sensing (light blue): if [key (left arrow) pressed?] then

Blue: turn (-10) degrees

Sensing (light blue): if [key (up arrow) pressed?] then

Blue: move (10) steps

:

---

Code for Movement (Using Arrow Keys)

Yellow: Event Block

Orange: Control Blocks

Blue: Motion Blocks

Light Blue: Sensing Blocks

when green flag clicked // (Yellow)

forever // (Orange)

if <key (right arrow) pressed?> then // (Light Blue)

change x by (10) // (Blue)

end

if <key (left arrow) pressed?> then // (Light Blue)

change x by (-10) // (Blue)

end

if <key (up arrow) pressed?> then // (Light Blue)

change y by (10) // (Blue)

end

if <key (down arrow) pressed?> then // (Light Blue)

change y by (-10) // (Blue)

end

end

---

Code for Shark (Following the Fish)

Yellow: Event Block

Orange: Control Blocks

Blue: Motion Blocks

Light Blue: Sensing Blocks

Purple: Looks Blocks

when green flag clicked // (Yellow)

forever // (Orange)

point towards [Fish v] // (Blue)

move (5) steps // (Blue)

if <touching [Fish v]?> then // (Light Blue)

broadcast [Game Over v] // (Yellow)

end

end

---

Code for Game Over / Backdrop

Yellow: Event Block

when I receive [Game Over v] // (Yellow)

broadcast [Game Over v] // (Yellow)

---

Code for Bubble (Random Position & Score Count)

Yellow: Event Block

Blue: Motion Blocks

Light Blue: Sensing Blocks

Orange: Control Blocks

Variable (Dark Orange): Data Blocks

when green flag clicked // (Yellow)

go to [random position v] // (Blue)

forever // (Orange)

if <touching [Fish v]?> then // (Light Blue)

change [my variable v] by (1) // (Dark Orange)

go to [random position v] // (Blue)

end

end

---

Code for Adding Audio & Video (Animation & Sound)

Yellow: Event Block

Purple: Sound Blocks & Looks Blocks

Orange: Control Blocks

when green flag clicked // (Yellow)

play sound [Meow v] until done // (Purple)

switch costume to [costume1 v] // (Purple)

wait (1) seconds // (Orange)

switch costume to [costume2 v] // (Purple)

wait (1) seconds // (Orange)

switch costume to [costume3 v] // (Purple)

wait (1) seconds // (Orange)

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