

## **Scratch Christmas Game!!**



We're going to be making a game in which Santa tries deliver presents to people's houses by dropping them down the chimney's!!

To this we're going to use Scratch Online (Scratch 2!) and change a pre-made template, to do that you need to set up a Scratch account, here's how to make one!

- 1. Go to <a href="http://scratch.mit.edu/">http://scratch.mit.edu/</a>
- 2. Click on "Join Scratch"



3. Enter your information and click "Next" until you reach the end where you click "OK Lets Go"



- 4. Go to <a href="http://scratch.mit.edu/projects/37489614/">http://scratch.mit.edu/projects/37489614/</a> and click in the top right corner to go to a pre-made template.
- 5. Click Remix in the top right corner to use the template.



You will be brought to a screen with Sprites and a backdrop, but we have to add the scripts to the Sprites to make the game work!!

## **The Stage**

The stage only has one little script, and the pieces come from **Events** and **Data**. For the "**when I receive**" piece you'll have to click on the drop down arrow and select "**new message**" and name it "**play**".

To make the "set \_ to \_" piece go to "Data" and select 'make a variable' and name it 'level'. Ensure that the "For all sprites" option is selected.

```
when I receive play veset level vest 1
```

#### Blank

Next up we'll add the script for the sprite called **Blank.** The first one will make it appear, and the second will make it disappear!

```
when / clicked
show
switch costume to blank 
when I receive play 
hide
```

Hint: These pieces can be found in Events and Looks.

## Roofs

Roofs only has one small script!

```
when I receive play v
switch costume to roofs1 v
```

#### **No Presents**

In the No Presents script we're going to use an effect called 'ghost'! It causes the sprite to appear faded, so that we can see it but it doesn't stand out too much! To select it click on the little drop down arrow and select 'ghost'!

```
when clicked

forever

set ghost veffect to 50
```

**Hint:** The "forever" piece can be found in "Control"

Now we've done all of the small scripts let's move on to some more complicated ones! We have to make the logo fade out, make Santa move, and get the presents to fall and the score to change!

#### Logo

We want the logo to appear at the beginning and then to fade out to show the game. To do this we're going to use the 'ghost' effect again. Also this script is very important as it is where the "play" broadcast comes from, so make sure you put it in!

```
when clicked

set ghost veffect to 0

show

go to front

wait 2 secs

repeat 50

change ghost veffect by 2

hide

wait 1 secs

broadcast play v
```

Hint: The "repeat \_" and "wait" piece can be found in Control.

## **Santa**

This is going be where we make Santa move across the screen. We need to make sure that he keeps turning around and also we want him to speed up as we go up levels, which should make it harder!

```
when I receive play

go to x: -190 y: 143

point in direction 90

forever

repeat until touching edge ?

move level / 2 + 1 steps

point in direction direction - 180

repeat until not touching edge ?

move level / 2 + 1 steps
```

Make sure that for the "move\_steps" pieces you have the green blocks in the right order! Hint: These blocks can be found in 'Operators'.

#### **Present**

The presents script is a bit longer than the others, just make sure you check with the last picture (which is what is should look like after all the steps) at the end!

To start with we have to make sure the presents are going to drop from Santa and that they don't appear until we click the mouse!

```
when I receive play v
forever
go to Santa v
hide
```

Next we're going to check to see if the mouse is being pressed, then pick one of the 8 different presents to drop!

```
when I receive play v

forever

go to Santa v

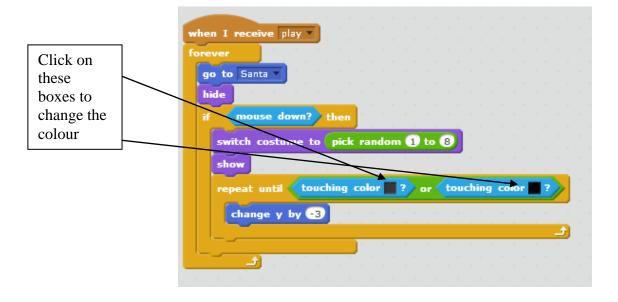
hide

if mouse down? then

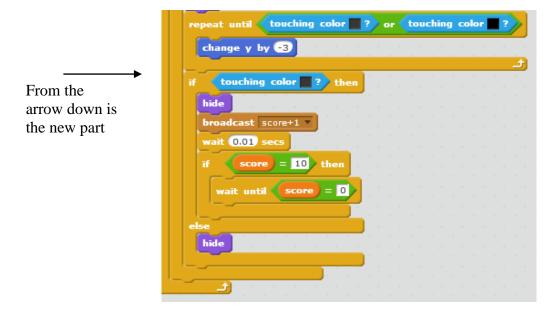
switch costume to pick random 1 to 8

show
```

This next bit will make sure the presents keep falling until they hit the roofs! To get the right colours, click on the little square on the "**touching colour** \_?" piece and the click on the chimney (the very top grey bit!). Do the same for the roofs themselves (that's the black bits!).



This section of the scripts (which is from the arrow down) will add to our score at the bottom and also make the presents disappear once they hit the roof/chimneys!



#### **Hints:**

- For the "touching colour\_?" piece use the same grey colour as the previous bit (the grey at the top of the chimneys).
- For the broadcast you're going to need to click on the little black arrow, select 'new message' and then name it "score+1".
- To make "score" is the same as when we made 'level' earlier on. So go to 'Data' and select 'make a variable' and call it score.

This is what present should look like when it's finished!

```
when I receive play verification for the switch costume to pick random 1 to 3 show repeat until touching color ? or touching color ? change y by 3 if touching color ? then hide broadcast score+1 vait 0.01 secs if score = 10 then wait until score = 0
```

#### **Score**

Now to make the score work, we're going to have 2 scripts, the first one will set the score to zero and hide them!

```
when I receive play v
switch costume to costume1 v
hide
set score v to 0
```

The next one will cause the little presents (which represent the score!) to light up as Santa drops off presents to the houses! Each picture follows on from the one before; the last one is what it should look like in the end!

```
when I receive score+1 v

change score v by 1

if score > 1 then

next costume

else

show
```

Make sure for this next section of the script that you set the "**switch costume to** \_" pieces to the correct costumes.**costume11** in the picture is a row of white presents and **costume10** is a row of 10 coloured presents. You can check this by going into the **Costumes** section.

```
if score = 10 then

repeat 2

switch costume to costume11 
wait 0.5 secs

switch costume to costume10 
wait 0.5 secs
```

This section of script goes inside the "if \_ then" piece we just used! Right here

```
change level v by 1

set score v to 0

switch costume to costume1 v

hide
```

This is what is should the whole script should look like when it's done!

```
when I receive score+1 v

change score v by 1

if score > 1 then

next costume
else
show

if score = 10 then

repeat 2

switch costume to costume11 v

wait 0.5 secs
switch costume to costume10 v

wait 0.5 secs

change level v by 1

set score v to 0

switch costume to costume1 v

hide
```

# Congratulations you've made the game! Enjoy playing!

## Now try and change it in any way you can think of! You could:

- Change the way the game looks by editing the costumes/backdrop or adding more.
- Make the game harder by changing the way Santa moves or the Presents fall.
- At the moment you can't lose the game (it goes on forever!) so you could make Santa have lives and he loses one if he drops a present and it doesn't make the chimney!
- The game has different levels, you could change them so the look different each time by changing the backdrops!
- Come up with your own ideas!! Be as creative as you can be!!