Session 3 – Using events to control a game

The week we are going to learn how to control a game works using events.

Step 1: Setup the background stage

In the File menu, select 'New' to start a new game. This gives you a screen with a single 'sprite' (Scratchie) and a blank Stage.

The first thing you are going to do is set a different stage for the game. Select the blank white Stage in the bottom right of the screen. Select the "Backgrounds" tab and import a new background.

In this project we will use a background music loop and change the background a little while the game is playing. Select the "Sounds" tab on the stage and import a sound from the "Music Loops" folder. Then set it up to play continuously when Green Flag is clicked. Not too loud please

```
when clicked

forever

play sound Xylo1 vuntil done

when clicked

forever

change color effect by 5

wait 0.5 secs
```

Step 3:

0

We are now going to make an interactive quiz. First, change Scratchies costume by selecting the "Costumes" tab and import something from the Fantasy Folder. I used witch1.

Then you can make the main character fly up and down a little during the game. Add the moves on the right to her script:

```
quizla
                     y: 2
                            direction: 90
   Scripts
             Costumes
                           Sounds
New costume: Paint | Import | Camera
                     witch1
                     180x136
                                   7 KB
                                    ×
                     Edit
                           Copy
                     cat1-a
                     95x111
                                   3 KB
                                    ×
                     Edit
                           Сору
```

Step 4:

Now let's ask the first quiz question. You can use a math problem, something from history class, or whatever you like. There are a few new things here. "Ask and answer" are in the sensing block, they let you ask the user to type a value. You can then use to the answer block to retrieve the value. "Broadcast" is used to send all other sprites a message. Other sprites use "When I receive" to take action.

```
when clicked

go to x: 0 y: 0

point in direction 90 

show

ask What's your name? and wait

say join See if you can answer my questions answer for 3 secs

forever

ask What is 24+16 and wait

if answer = 40

say Good! for 2 secs

broadcast q2 

stop script

else

say Try again for 2 secs
```

Step 5: More questions

Add another question and then fly off when the game is over. When the correct answer is given above, it sends a "q2" message to all sprites listening for that message. This starts the next question.

```
when I receive q3 v

forever

ask What is 16 * 2 and wait

if answer = 32

say Good! for 2 secs

broadcast q3 v

stop script
else

say Try again for 2 secs

when I receive q3 v

think Bye bye now! for 2 secs

point in direction 90 v

turn 15 degrees

repeat 30

move 10 steps

hide

stop all
```

Step 6: More project ideas

- Add another question
- Make a new sprite and turn it into a frog if a question is answered wrong
- Keep count of wrong answers, if you miss more than once make something unexpected happen
- Add an event to your game from last week