

Animating a dance



Tap on the Scratchjr logo on the Home screen
The app will open and you will see this screen



Touch the house on the left of the screen.

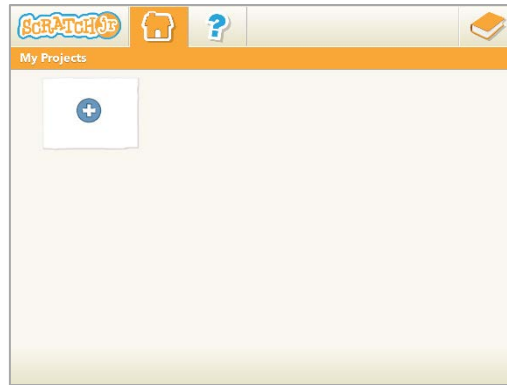
The first time you do this you might be asked if you are at home or school.
Answer the question.


You will then see either

a new project with a cat on its stage



or the project page

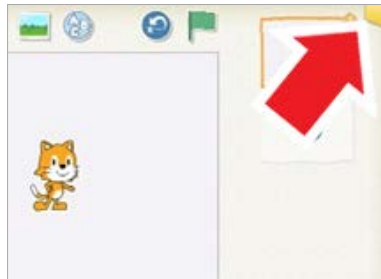



If you see the project page tap the  button

This will take you to the screen with the cat on it. You can now start working.

However, before you start it is a good idea to give your project a name and save it.

Tap on the orange shape at the top right of the screen



Type in a title then tap 

You are now ready to start making your animation.

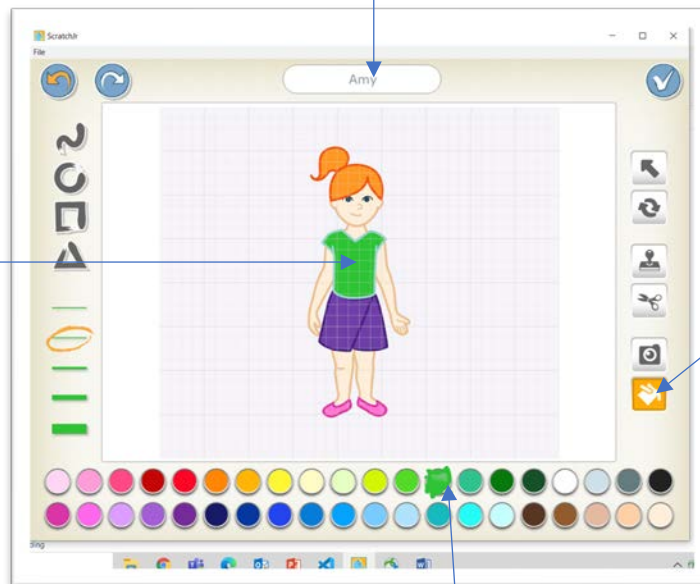
Scroll down and select then select the paintbrush



1 Change the way the character looks


4 Change the girl's name to Amy

3 Tap the girl's top to change its colour

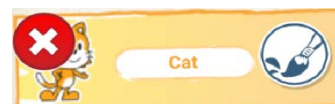


1 Make sure the paint pot is selected

2 Select green by tapping on the paint colour

2 Touch  when you are finished. Amy will now be on the "stage", the main screen for your app.

3 Delete the cat (press and hold)

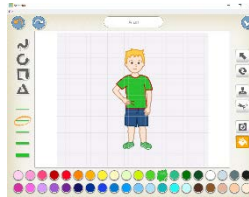


4 Select



give him a green shirt and call him Alan.

Add Alan to your stage. The sequence of actions to do this is:



change
colour



5 Scottish Country Dances usually have sets of eight people, four couples.



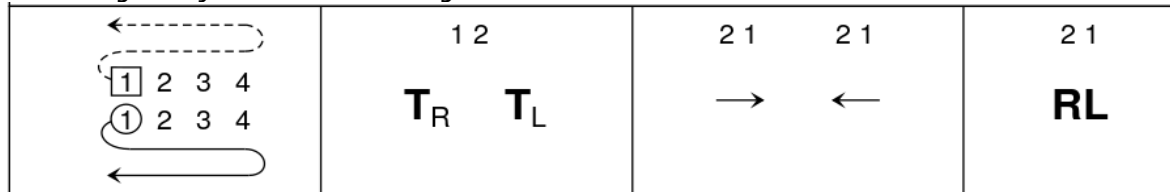
Amy and Alan are first couple. Move them to first place on the stage.



Formation 1

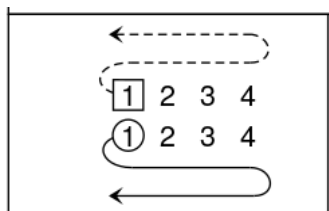
Once the dancers are ready on stage it's time to make them dance.

The diagram for the dance Highland Fair looks like this:

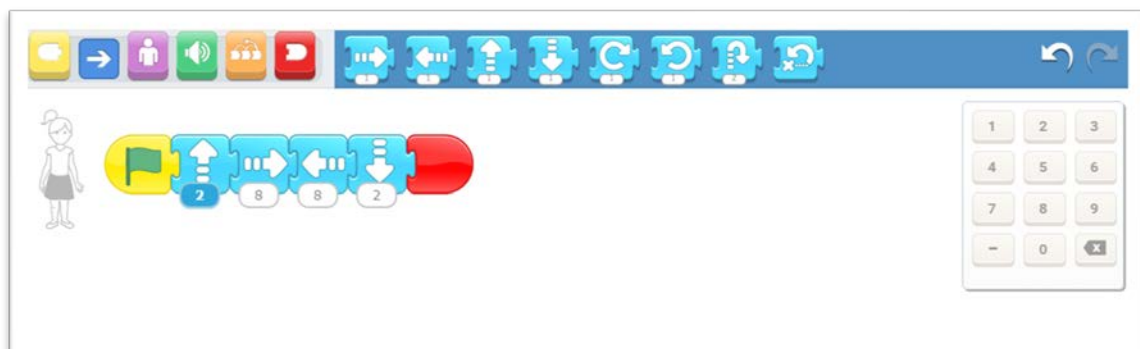


It has 4 formations.

Think about Amy's path for the first formation.



To start with she needs to move up, go right for four skip change of step, turn and come back for four skip change of steps. Steps in Scratchjr are very short so Amy needs to take 2 Scratch steps for every skip change of step. The code blocks look like this



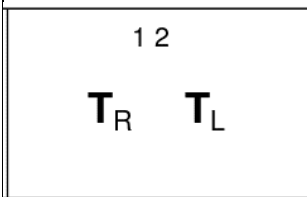
- 1 Tap Amy, add the blocks by dragging them into the lower white box then tap on the green flag to see her move.

Check that Amy is moving in the right direction.

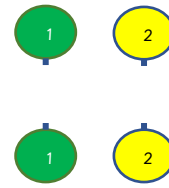
- 2 Alan needs to move in a similar pattern but he will need to move down first.

Select Alan and add a sequence of blocks to make him dance the first formation.

Formation 2

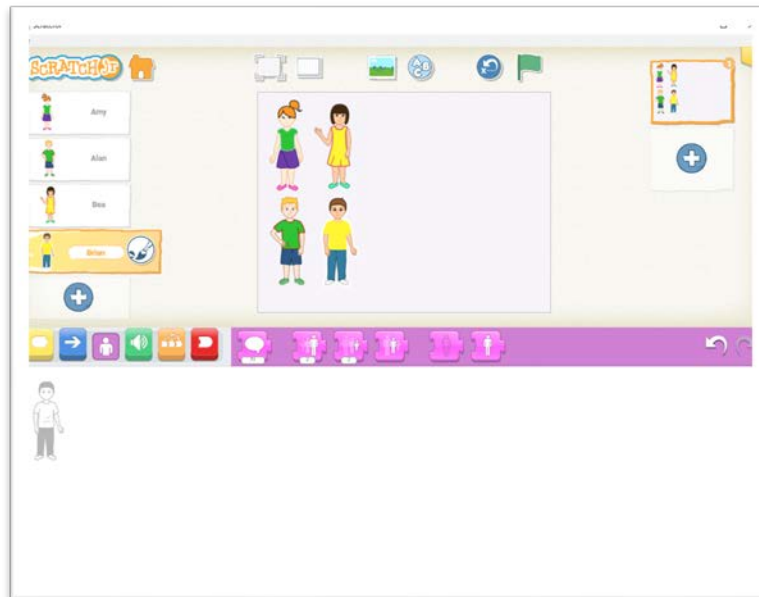


Once Amy and Alan have danced the first formation, we need think about the next formation. Both first and second couples will dance this formation.




We need to add second couple to the stage. To make it easier to remember which couple is which give them different coloured tops.

- 1 Add two more dancers to the stage, one girl and one boy. Call them Bea and Brian and change the colour of their tops to yellow.



Brain and Bea don't start dancing at the beginning of the dance. They start dancing after the first formation is finished. They need a message to tell them when to start.

Amy can send them a message. Use the  block to get Amy to send an orange message .

Once the four dancers get the message they can start the formation. They will turn by the right and then by the left.

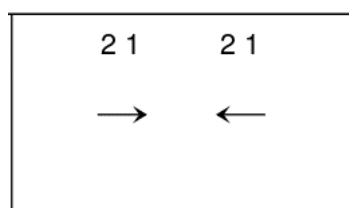
2



This is Amy's path for turning by the right. Work out Alan's path. Add the paths to Amy and Alan and play the app to check what happens

- 3 You will need to change the number of steps sideways to make sure that Amy and Alan don't bump into each other.
- 4 Once Amy and Alan turn can by the right okay, get Bea and Brian to join in.
- 5 Then get each of the dancers to turn by the left.

Formation 3



In this formation Amy and Alan dance to the end of the set followed by Bea and Brian. Then Bea and Brian dance back, followed by Amy and Alan.

At the end on the formation they have changed places. Bea and Brian are in first place while Amy and Alan are in second place.

This means that Amy and Alan have a long way to go for the first four bars and a shorter way to go for the second four bars of the formation. Here is Amy's path



Bea and Brian have a different path- they don't have very far to go for the first part of the formation but they need to go further for the second part.

Amy can send a message to tell people when the formation starts -but be careful- Bea and Brian can't start dancing until Amy and Alan have gone past them otherwise they'll bump into each other.

You can use the wait block



to get Bea and Brian to wait until

Amy and Alan have gone past before they start dancing.

- 1 Add the code blocks for formation 3 to each dancer
- 2 Check that the code works as expected.

Formation 4

2 1

RL

This formation is split into four equal parts.

First part: 2nd and 1st couples cross over by the right to change sides.

Second part: 2nd and 1st girls and 2nd and 1st boys change places by the left on the sidelines.

Third part: 1st and 2nd couples cross over by the right to change sides.

Fourth part: 1st and 2nd girls and 1st and 2nd boys change places by the left on the sidelines to finish back where they started the formation.

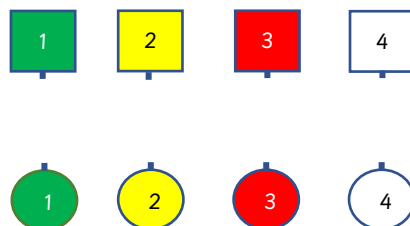
Amy is first girl. Her path for this formation is shown here.

The other dancers follow similar paths but will need to move slightly different distances to avoid bumping into each other.



Final Touches

Scottish Country Dances usually have sets of eight people, four couples.

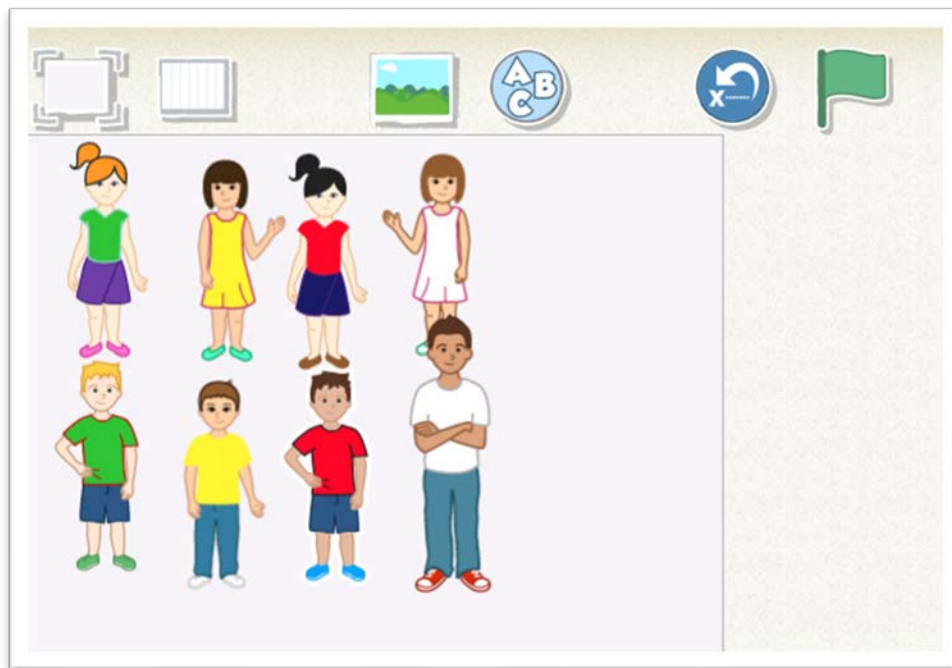


Add the other couples to your app.

Third couple are called Cara and Colin and have red tops

Fourth couple are called Diane and David and have white tops.

Once you are finished the stage should look something like this:



Tap the green flag at the top of the screen and watch the dancers perform Highland Fair.

Extension Activities

It's a bit crowded! Experiment with finding code blocks to make the dancers smaller so they have more room to dance.

You have programmed the first turn of the dance but the dance is usually danced eight times through.

Add code blocks to dance the whole dance.

Each couple should have the opportunity to dance from first place. Once a couple begin to dance, they keep dancing until they reach the end of the set. The first couple, in green, start and dance from first, then from second then from third place. They progress one place at a time and finish in the fourth place having completed the dance three times. The original 2nd couple, in yellow, begin the dance at the start of the third time through, the couple in red

at the start of the fifth time and the couple in white at the start of the seventh time. The couple in white dance twice only and finish in third place.

Try adding some music using . You may need to change the dancers

speed using and make them wait for the music
them dancing in time.



to keep