6. Superhero Rescue

Activity Structure – 45min

Activity	Timing
Warm up Game	5 mins
Introduce Story and Project	10 mins
Main Activity	25 mins
Final test & debug	throughout
Share with group	5 mins

Overview

As this is the last project in the course the children will have more freedom to decide how their finished project will look.
They will create 3-4 different scenes for their superhero character to travel seamlessly across, encountering all number of challenges and rescues on the way.

Learning Objectives

- To create a project with multiple pages and seamlessly switch between them.
- To use my own ideas in a project.

National Curriculum

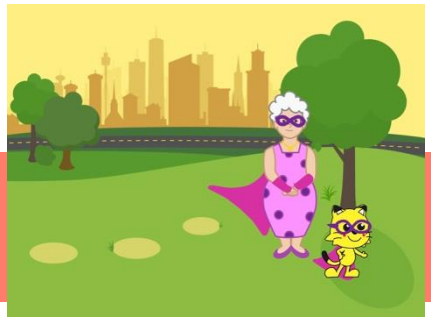
- create and debug simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Warm up game: Flash card sorters

- Spread the flashcards around the room or on the table.
- *Oh no! My flashcards are such a mess. Could you help me to sort them into the correct piles?*
- Challenge the children to find the flashcards and put them into the correct pile.
- Depending on how calm your children are you could do this at a table, with the children taking turns, or around the room with the children all moving around to locate the cards and put them into the correct pile (have one pile for each corner of the room: motion, start, looks and control).

Introduction (discuss the project together, share ideas and create excitement)

- Show the children the project. *How brave super gran is! Who did Super Gran rescue first? Who is her sidekick? How do you think he changed into his superhero costume?* Ascertain that the normal cat and the superhero cat are two different characters.
- *How do you think I made Super Gran and Sidekick Cat travel across the different pages? Which code blocks might I have used?* Show the code for the two characters.
- Open a new project and turn on the 'grid' (grid icon at the top of the screen). Use the Scratch cat and some forward movement blocks to demonstrate how each time the cat moves 'forward 1' it's the same as moving forward one square on the grid (the square appears blue on the screen as the character moves). Older children could use the grid to support them to code their own 'Superhero' character to move across different pages.
- *Most of us are experienced coders so today I'd like to give you more freedom to design your own projects.*
- *You will create 2-4 different pages for your superhero character to travel across. If you are feeling confident you can use your own backgrounds, characters and code. Or if you prefer you can work with me/our TA to create a project like the one I showed you.*
- *What daring feats will your superhero undertake? How will you code this?*
- Have a discussion so that the children have some ideas and are excited about creating their projects.



6. Superhero Rescue

Main Activity Key questions and teaching

1. Choose a character from the library and edit it to look like a superhero.
2. Add 1-2 further pages to the project. *Where will your superhero go?* Choose, edit or draw a background for each of the pages.
3. *Can you show one of your hero's superpowers on the first page? Will she jump a tall building, have super speed or turn invisible?* Support the children to code their character. Less confident coders could work in a group with the TA or tutor to remake the example project.
4. *Now let's make our hero fly seamlessly to the next page.* Turn on the grid feature and demonstrate how it can be used to help code a character to reach the far right of the screen. *My character starts on square 7. They need to reach square 17. 17 – 7 = 10 so my character needs to move forward 10 squares.* The superhero character must move them to the far right or the screen to make the page switch appear seamless.
5. Add a [Go to Page 2] block to the end of the code/script.
6. Add the superhero character to the next scene and position them to the far left so that it looks like they have travelled from page 1.
7. *What will your hero do now? Do you want to introduce a sidekick? Remember you'll need two characters (normal cat and super cat) and you'll need to use messaging blocks in your code.*
8. Repeat step 4 and 5 so that your hero (and sidekick) travel to page 3.
9. *What could your character do on page 3? Will they perform a rescue or show off their superpowers?* The example project has a simple hide & seek game where the player must tap on the trees to try and locate a missing monkey. The children could do something similar with different characters.
10. Once the children have finished their projects encourage them to check and debug .

Teaching points

- Encourage the children to add 'Play Recorded Sound Blocks' to their projects to tell the story.
- The biggest possible issue will be the children running out of time and feeling disappointed. Help them to manage their time by regularly reminding them how long they have left and what point they should be at, e.g. *You have 15 minutes left and you should have nearly finished page 2.*
- Encourage the children to finish one page before moving onto the next one otherwise they may end up with lots of half-finished pages.
- Offer lots of praise, support and encouragement when the children use their own ideas.

Possible Extensions

- Experienced coders could decide what they want their scenes to look like, then decide how they will achieve this with the code blocks.
- Encourage experienced coders to work more independently.
- Create more sophisticated movements and effects for the characters, e.g. add some sound and say blocks.

To Simplify

- Keep ideas quite simple and just have two pages.
- Allow less confident children to copy ideas from the example project.
- Support the children by pulling down the blocks they will need so that all they need to do is order them.

Finishing up

- Pick 1-2 projects where a character moves in an interesting or unusual way.
- Challenge to group to predict the code used for this character, then show them the code so they can see if their prediction was correct.