



Prince and Princess

Scratch lesson plan – Code Playground



Lesson overview

In this lesson, students will create a project called "Prince and princess" using Scratch. They will create an interactive story with characters and dialogue, incorporating sequencing and event driven programming.

This lesson re-enacts the classic tale of a princess transforming a frog into a prince. Using sequencing and timing to program interactions between characters, such as the princess kissing the frog and the subsequent transformation.

Time	Key learning outcomes	Resources
45 mins	<ul style="list-style-type: none">Understand the importance of the order of commands to ensure the story flows logicallyLearn how to use events to trigger specific actions within the storyEncourage creativity by allowing students to customise characters, dialogue and scenes.	<ul style="list-style-type: none">Laptops or desktop computersAccess to Scratch website - https://scratch.mit.edu

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Activity introduction

Introduce the concept of the project:

"Today, we'll create an interactive story in Scratch where the princess must kiss the frog to release the prince from the magic spell. We'll use sequencing to create the story by putting the instructions in the right order."

Discuss the power of sequencing:

"Sequencing is the order in which instructions are given and carried out in a program. If the events happen out of order (e.g. the frog turns into the prince before the princess kisses him), the story breaks. Just like following a recipe, the steps must happen in the right order for everything to make sense."

Real-life connection:

"Think about real life scenarios like making toast, you put the bread in first before pushing the toaster down. You look both ways before stepping out to cross the road."

Tie this project to cross-curriculum links with English. This project supports creative writing through storytelling, sequencing of ideas, dialogue writing, and character development.

Scratch practical

Ask the children to log into Scratch and pick the castle 2 backdrop to begin.

Show the prince and princess video as a guided lesson pausing regularly when the pupils need to catch up.

- Children should be able to follow along with the workbook or the guided lesson video
- By the end of the lesson children should be able to create a working program showcasing the prince and princess project.

Activity – Prince and princess

This project will support you to create storytelling in Scratch featuring a prince and princess. The interactive story is designed with characters, speech, animations and sound. You'll choose your own backgrounds, add sound effects, and use code blocks to control what happens and when.

Class question:

"How can technology help bring stories to life?"

The enclosed code snippets will demonstrate to you how the sequencing works.

Scratch practical

Using the video and workbook support the children to follow the instructions and complete the coding project. Have them think of other ways to enhance the project if they have extra time.

Activity wrap up

Prepare to share your project with the class.

How did using sequencing help your story make sense?

Encourage customisation

- Add in an introduction and finale to their story
- Make the story interactive, so the user must make choices that affect the story
- Use less blocks and make the code more efficient.



Code snippets

Princess

```

when clicked
hide
switch costume to princess-a
go to x: 140 y: -20
wait 1 seconds
show
say Help! The evil witch has turned Prince Charming into a frog for 2 seconds
wait 1 seconds
say URGH!! I have to kiss the frog to break the spell for 2 seconds
wait 5 seconds
move -155 steps
wait 1 seconds
move 155 steps
wait 5 seconds
switch costume to princess-b
wait 1 seconds
switch costume to princess-a
  
```

Prince

```

when clicked
show
set ghost effect to 100
go to x: -70 y: -10
set whirl effect to 900
wait 14 seconds
change ghost effect by -100
repeat 3
  wait .3 seconds
  change whirl effect by -300
clear graphic effects
wait 1 seconds
say You have freed me from the witch's spell!! for 2 seconds
stop all
  
```

Frog

```

when clicked
hide
go to x: -15 y: 20
wait 3 seconds
show
wait 4 seconds
say Help me please. I'm stuck in a frog's body for 2 seconds
wait 2 seconds
play sound Magic Spell until done
wait 1 seconds
repeat 3
  wait 0.3 seconds
  change whirl effect by 300
change ghost effect by 100
hide
  
```

Heart

```

when clicked
hide
go to x: -30 y: 40
set size to 20 %
wait 11.5 seconds
show
repeat 8
  wait .1 seconds
  change size by 5
  change y by 10
hide
  
```

Summary

The following information is an example of what a child at an expected level would be able to demonstrate when completing these activities with additional examples to demonstrate how this would vary for a child with emerging or exceeding achievements.

Assessment guidance

Differentiation – Lower ability/ASN

- Provide step-by-step visuals from the workbook to support coding tasks
- Focus on creating one sequence at a time before combining them
- Allow paired work to help students learn collaboratively.

Differentiation – Higher ability/extension

- Challenge students to create their own story
- Encourage them to use broadcasts for more interactions
- Challenge students to add more characters/scenes to the story.

Plenary

- "What did you learn about using sequencing today?"
- "How did sequencing help to keep your project in order?"
- "How could you use sequencing in future Scratch projects?"

Assessment questions

- Was there a section of the code that was repetitive?
- What Scratch blocks did you use to tell the story on the display?
- What improvements could you make to your game?