Dorset coding week

Scratch lesson plan – Code Playground

BARCLAYS | Dorset Council

Lesson overview

To support Dorset coding week, the students will create an interactive online safety quiz hosted by a talking dinosaur sprite. The project introduces the text to speech extension and shows how lists can be used to store and retrieve questions and answers efficiently. Students will begin by exploring how to use Scratch extensions, then code the quizmaster to ask and speak questions aloud. They'll learn to use list variables to allow for flexible, efficient quiz design. By the end of the lesson, students will have a working quiz game and a deeper understanding of how to stay safe online.

Time	Key learning outcomes	Resources
45 mins	• Understand how to use Scratch extensions, specifically the text to speech blocks • Use lists in Scratch to store quiz questions and answers • Create an interactive quiz with a speaking character • Understand key online safety principles through a custom quiz	• Laptops or desktop computers • Access to Scratch website - https://scratch.mit.edu

Content

Activity introduction

Introduce the project and begin by asking the following questions to start a class discussion:

- "What do you know about staying safe online?"
- "Have you ever taken a quiz to learn something new?"

Real life connection: Explain that today, they'll become online safety quizmasters by coding a dinosaur character who will speak and ask safety questions.

Highlight why online safety matters:

> "Every day, we use the internet for school, games, and socialising. Knowing how to stay safe helps protect our personal information, avoid cyberbullying, and make smart decisions online."

"In this project you'll learn how to create lists in Scratch to store questions and answers"

Scratch practical

Ask the children to log into Scratch and set up their workspace as described in the workbook.
Show the Dino safety quiz 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 Dino safety quiz.

Activity – Dino safety quiz

Guide students to find the "Dino safety quiz" project:

Search for it on Scratch and click "Remix" to start editing.

Familiarise students with the existing code:

"Click 'See Inside' to explore the sprites and the code already in place. Notice that the dinosaur sprite will ask the questions."

"The questions in this quiz will test your knowledge about staying safe online. Think about topics like why cyber criminals target passwords, where is best to download content from, viruses and creating a strong password"

The quiz can be enhanced by running a class activity where students research online safety and expand the quiz with other questions and answers. Need inspiration? Check out our Safer Internet Day quiz questions.

Scratch practical

Using the video and workbooks 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

"Does the dinosaur ask each question from the list?"

Encourage customisation:

- Add sound effects to emphasise correct and incorrect answers
- Include a scoring system to track how well players understand online safety
- Create an instruction page at the start.

Quiz questions

1. Why do cyber criminals target passwords?

   A. To take your money
   B. To take your identity
   C. Both of these

2. Where is best to download content from?

   A. Social media
   B. Trusted websites
   C. From a random email link

3. Someone who wants to get into your computer illegally is called what?

   A. Virus
   B. Worm
   C. Hacker

4. What should you avoid using as a password?

   A. Pets name
   B. Birthdays
   C. Both of these

5. When viruses spread onto a computer, it's said to be what?

   A. Scrambled
   B. Infected
   C. Damaged

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 prepared questions and answers
- Work on only one or two questions without using the list block
- Allow paired work for additional support.

Differentiation – Higher ability/extension

- Challenge students to create their own quiz questions
- Explore how to randomise questions from the list
- Encourage students to design their own theme (e.g. space quiz, detective quiz).

Plenary

1. "What did you learn about online safety today?"
2. "What coding blocks helped you make your quiz work?"
3. "How did lists make the code easier and more dynamic?"

Assessment questions

- What is a list, and how does it help organise quiz questions?
- How can you add more questions to the quiz?
- Why is it important to teach people about online safety?
- What would you change or add to your quiz if you had more time?

Enhance your skills by completing our 'Keeping children safe online' module. You will learn about online reputation, online risks, gaming safely and tips to help children manage screen time.