

Gismo's Spy Quiz



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

The children will create a quiz with multiple choice answers. If the answer is correct the player progresses to the next level, but if the answer is wrong they start again.

As this is the final project in the course the children will have the opportunity to use their creativity and skills to personalise this project. You may want to provide them with a pen and paper to do a rough 'design' for their project.

Learning Objectives

- To use my own ideas to personalise a project.
- To make coding and design decisions based on what I want my finished project to look like.

National Curriculum / EYFS Curriculum Links

- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and

Warm up game: Guess the program

***Some tutors may want to skip the warm up if they plan to allow time for the children to design their projects.**

- The tutor should act out several short programs/code. *Can you guess what my code/program is?*
- The children should try and guess what the program is. Confident children could also have a go at acting out a program for other children to guess. Use flashcards to support if needed.
- Decide whether you want to limit the program/code to the blocks available in Scratchjr.
- Here are some possible programs:
 - Shrink, Forward 5, Grow, Forward 5.
 - Slow, Backwards 5, Wait, Fast, Forward 5
 - Jump, Backwards 5, Play Recorded Sound Pop

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

- Show the children the Gizmo's Quiz project. Remember to show what happens when a question is answered correctly and incorrectly.
- Use the introduction to get the children thinking about what their project will look like. Ideas could be written on a whiteboard or a flipchart, or you could model creating a 'design' for your project.
- *Have you ever done a quiz before? What questions would you have if you did a quiz?*
- *How would you draw the possible 'answers' to your questions as characters? I used numbers because they're easy to draw.*
- *What theme might you have? Animals, house, underwater? My theme is spies.*
- *Who could your main character be? What might their prize be if they answer the questions correctly? What will happen if they answer the question incorrectly?*

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Main Activity Key questions and teaching

1. Work with the children to create a rough plan for the project (there is an example design on the Resources Page below). You could do one together or get the children to do it individually or in pairs.
2. Open a new project and give it the correct number of pages.
3. Select, edit or draw the background and characters for page 1. Allocate a set amount of time for the children to spend doing this.
4. Let's code the detective: record an introduction, and a question. Create a line of code for the detective so that on the green flag he walks into the room and plays the two recordings.
5. Now code the answer characters. When they are tapped they will need to take the player to either page 2 (correct answer - next level) or page 3 (incorrect answer – try again). *Do you want your answers to do anything on the [Green flag]? Will there also be a visual effect when they are tapped?*
6. *Will anything else happen when the correct answer is tapped? In my example I used messaging blocks to make a key and a door appear. I also had another sound recording.*
7. *Will anything happen if an incorrect answer is picked?*
8. Now let's do page 2. Repeat steps 3 to 5 but this time when the correct answer character is tapped include a [Go to page 4] block.
9. *For page 2, will you like to have more than two possible answers? I had three in my example.*
10. Finally let's create the 'bonus' page on page 4. Encourage the children to be creative. They could have a simple animation (like in the example), or they could create a game or an interactive animation which requires the player to tap the characters to make them move.

Teaching points

- For progression, children could code the first page with support, code the second page with minimal support, and the third page could be coded independently.
- Allow less confident coders to work closely with an adult and encourage confident coders to work more independently. If you have a TA one of you could circulate, while the other works closely with less confident coders.
- Encourage the children to test and debug throughout.

Possible Extensions

- Use messaging blocks to create a 'reaction' when the wrong answer character is tapped. On page 1 in the example the bed lifts up to reveal a bomb underneath before going to the 'Try Again' page.
- The final 'bonus round/you win' page could be an interactive animation.
- Use a mixture of both [Record Sound] and [Say] blocks throughout the project.

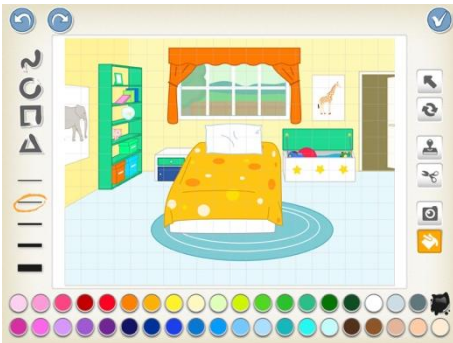
To Simplify

- Avoid using text by only using the [Record Sound] block rather than the [Say] block.
- Avoid using messaging blocks by not having an animation when an answer character is tapped. Instead, when an answer character is tapped take the player directly to the next page.
- Leave out the visual effects, e.g. the answer characters 'wriggling', and 'growing & shrinking' when tapped.
- Just have one question rather than two (and therefore less pages to code).
- Have a quiz theme which allows the children to use library characters, e.g. under the sea. The answers could also be library characters, e.g. which of these animals lives in the sea? A seahorse or a lizard. Tap the correct one.

Finishing up

- Swap tablets and play each other's quizzes.
- Give precise, specific feedback to each child in recognition of their hard work, e.g. *Well done XXX. I was really impressed by how hard you worked even when you found page 2 tricky OR XXXX, I was completely blown away by the code you used to make your character dance at the end.* If you have quite a mature class, you could even encourage the children to comment on each other's projects.

Resources



Resources

Example design:

- This is just one of the formats you could use. Any format is fine – we just want to encourage the children to think about how their finished project will look.

Gizmo's Spy Quiz

Theme: spy

Characters: spy man, magnifying glass answers, key, door, you lose key, try again.

Page 1	Page 2	Page 3: You Lose	Page 4: You Win
Background: room	Background: library	Background: Black	Background: park
Question: what is 50 x 3?	Question: what is 500 divided by 2?	<ul style="list-style-type: none"> • Key character shrinks and grows. • Try Again bounces across the screen then takes you back to page 1. 	Spy man says well done and walks slowly across the screen.
<ul style="list-style-type: none"> • Spy man walks up and asks the question. • Answers wiggling. • If correct the key and magic door appear, otherwise go to You Lose page. 	<ul style="list-style-type: none"> • Spy man walks up and asks the question. • Answers wiggling. • If correct the key and magic door appear, otherwise go to You Lose page. 		