



Lesson overview

In this lesson, students will create an interactive language-learning project in Scratch called "Bonjour little fish." This project uses the Text to Speech and Translate extensions to help students explore language translation and voice synthesis. By the end of the lesson, students will understand how to incorporate Scratch extensions into their projects and develop creative, interactive tools.

Time	Key learning outcomes	Resources
45 mins	 Learn to add and use Scratch extensions like Text to Speech and Translate 	 Laptops or desktop computers
	 Program sprites to interact dynamically with user input and provide spoken translations 	 Access to Scratch website - https://scratch.mit.edu.
	 Explore creative possibilities by animating sprites and customising backdrops. 	

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Barclays Code Playground

Bonjour little fish—Lesson plan



Introduction

"Today, we'll build a Scratch project called 'Bonjour little fish.' You'll learn how to use the Translate and Text to Speech extensions to create a language-learning tool where fish can speak and translate text."

"Tools like Google Translate and voice assistants use similar principles to what we're building today. You'll see how programming makes it possible."

The activity in this project uses the translate and text to speech extensions to create the programme. You may need to monitor the young people to ensure that they are using the completed programme to translate appropriate phrases

Hold a class discussion on the topic of translations. Talk about where it can be helpful to have a translator but also cases of lost in translation. You could play a game where a message is whispered into the ear of one person who passes it around the class. How much has the message changed by the time it makes it round?

Scratch practical

Ask the children to log into Scratch and follow the workbook instructions. Show the bonjour little fish 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 Bonjour little fish activity.



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Activity – Bonjour little fish

The bonjour little fish project uses the text to speech and the translate extensions. There is a wide range of potential languages available in the extension, you can choose a language based on what is taught in your school or pick whichever you like. You could tie it in to countries where pupils are from or have visited on holiday.

Class question:

"What could we use a translator program for?"

Encourage the pupils to customise their own backdrops and sprites to make their project unique.

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.

"What languages could you add to make the project more fun or useful?"

Encourage customisation

- Animate the fish to make them swim or react when speaking
- Add a feature where users choose a language before typing
- Create a scoring system to encourage users to type translations correctly.



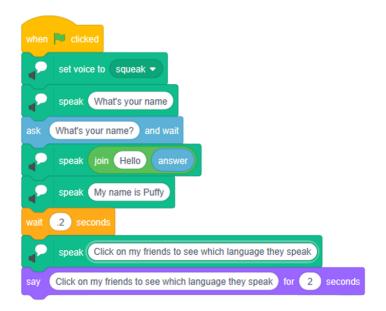
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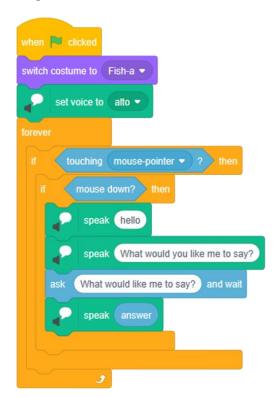
Code snippets

BARCLAYS

Puffer fish



Fish



Translation



Backdrop

```
when clicked

set color effect to 2

forever

change color effect by 0.2
```

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translate answer to Spanish .

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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 a printed or digital guide with step-bystep screenshots of the code blocks
- Focus on setting up and testing a single sprite before adding translations
- Allow paired work for additional support.

Differentiation – Higher ability/extension

- Challenge students to create new characters or customise their fish with animations
- Explore how to use variables to store user preferences or selected languages
- Encourage students to add a timer or scoring system for interactive learning.

Plenary

"What did you learn about using Scratch extensions?"

"How does the Translate extension work with Text to Speech?"

"How could this project help someone learn new languages?"

Assessment questions

- What are Scratch extensions, and how do they enhance a project?
- How does the Translate extension work in this project?
- How could you customise the fish to make them more interactive?
- What other types of projects could you create using Text to Speech?

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