Programming a coastal erosion quiz using if ... else statements

This is an excellent activity for children to do while studying coastal erosion; not only will it improve their computer science skills but it will also develop / consolidate their understanding of erosion. The activity could be used as an introduction to 'if ... else' statments in computer science or as part of a project to consolidate their understanding. Finally, this method of making a quiz can be used for any topic of your choice.

Ask a question

Step 1. We can use the Sensing Palette to select an instruction which will make the sprite ask a question.

Once you have written the code, run the code by pressing the 'green' flag. What happens?

Run the question code

Step 2. When the program runs you should see Scratch asking "Name a coastal feature beginning with C." and a space for your answer. In fact the program cannot continue from this point until you have pressed the 'Enter' key.

Checking the answer

Step 3. The answer that you type in needs to be stored somewhere so that it can be checked to see whether it is correct. The answer is stored in a **variable** called answer, which may be found in the **Sensing Palette**. You can think of variables as labelled boxes in the computer's memory, which store data. This box is labelled 'answer' and contains the text that you typed in. Next we need to check that the text inside the variable answer is the same as the correct answer 'cave'. We do that with the same as operator, .

Using If ... Else statements

Step 4. Now that we can check to see whether our answer is correct we need to decide what to do if it is either right or wrong. We can do this using an If ... 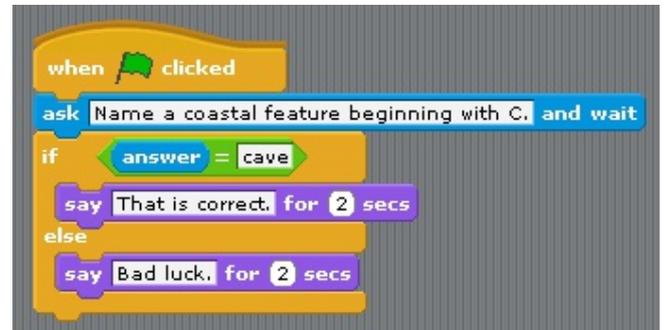Else statement. This statement can only be true or false (i.e., the answer is the same as 'cave' or it is not). If it is true then Scratch will say 'That is correct.' else it is false and Scratch will say 'Bad luck.'
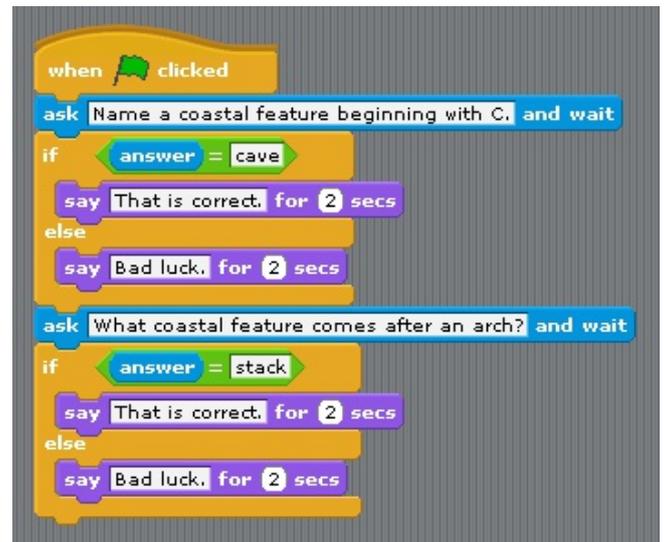
Run the script to check that it does as you expect.

More questions make a quiz

Step 5. Now try and create more questions to make a quiz. You will need 6 to 7 questions, one for each stage of your erosion animation.

Just copy and paste the section with the ask and if...else blocks of code to create multiple questions.