A LEVEL COMPUTER SCIENCE

Lesson Element

Thinking Procedurally

Activity 1

Play a quick game of hangman as a class or with the person next to you. (No more than 5 letters to guess) While playing, think about the different things that you need to consider when playing the game.

You could use this box or a separate piece of paper to write down some of the things that happen

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Activity 2

What would you need to show the user at:
The start of the game?
During the game?
At the end of the game?
Would the user need to input anything to the program? What would that be?
When does the game start?
When does the game end?
Are there any particular rules that need to be applied when playing a game?

Extension

Using Scratch or Python, try to use Lists or String variables to make a simple version of hangman.

Guided worksheet of how to make hangman in Scratch

1. We will be putting all the code for this exercise into one sprite.
2. Create two variables 'itr' and 'guessesRemaining'.
3. Set 'guessesRemaining' to 6.
4. Hide the variable 'itr'.
5. Create three lists: 'word', 'guessWord' and 'badGuesses'.

- 'word' will contain the word we are trying to guess.
- 'guessWord' will be the series of blank underscores that we use to guess the final word.
- 'badGuesses' stores the characters that are not in the word we are trying to guess.

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6. Find a way to delete everything from those lists so that your program starts fresh. (HINT: make a repeat loop that is the length of your list, and keep deleting the first element of the list.)
7. Add the characters for the word you want the player to guess to the 'word' list one-by-one.
8. Add the same number of underscores to 'guessWord'.
9. Now you want to set up a loop to constantly ask the user for a letter, until 'guesses Remaining' equals 0 or the 'guessWord' list is equal to the 'word' list.

Within that loop:

- If we have already guessed that letter, do nothing.
- If we have not guessed it yet, and it is in the 'word' list, then find out where that letter is. Replace the underscore in the 'guessWord' list with that letter.
- If we have not guessed it yet, and it is not in the 'word' list, then add it to the 'badGuesses' list. Decrement 'guessesRemaining'.

10. Once we have exited out of the loop, if 'guessesRemaining' equals 0 we have lost, if not we have won the game. Send a broadcast or have your sprite say something.

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