Lesson 6 – Project – Healthy Eating Quiz Machine  
Testing and Evaluation

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| The Big Picture – Why Is This Relevant? | Learning Objectives |
| * Healthy eating and exercise are an important part of children lives. This project asks the Learners to create a healthy eating quiz that asks a young child questions and then provides some form of feedback to them. | * Test the project * Present the final product * Evaluate the project |
| Engagement – How Can I Engage Learners? | Assessment for Learning |
| * This is the last lesson and Learners should have a clear progression with the project * Teacher could support groups that are having issues with the program code as identified at the end of the previous lesson | **Expected Progress:**   * Learners create a healthy eating quiz * Learners provide some feedback   **Good Progress:**   * Learners use selection to enable child to input different responses * Learners build a suitable display for the quiz   **Exceptional Progress:**   * Learners use images in the quiz * Learners use variables to keep track of the child’s responses   Learners program feedback based on the responses given by the child |
| Links to KS3 Programme of Study | |
| * design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems * use 2 or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions * undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users * create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability | |
| Key Concepts | Key Words |
| * Testing the code * Presenting the program * Presenting the final project * Evaluating the project | * Variables * Lists * Functions * Event handling * Buttons * Selection * Strings * Storing data in variables * Using the pins * Responses * loops |
| Differentiation | Resources |
| Learners will benefit by being placed into groups with the required skills set for the project. For example, programming, ideas, design of the display, fast at typing.  This will ensure that all groups have the opportunity to meet the requirements of the project. | * Lesson 6 ppt * Lesson 6 Activity Sheet * Reflection Sheet * 1 micro:bit per learner * 1 USB cable to connect the micro:bit to a PC * A PC * Access to [micro:bit Python Editor (microbit.org)](https://python.microbit.org/v/3) * Arts and crafts |
| Lesson flow | |
| * Starter - students share the one area that they were going to solve before this session * Teacher to briefly recap the project and the Success Criteria * Learners should focus on finalising and testing the program code of the quiz. As learners test the code they should record any errors on their design sheet * Learned can use the activity sheets from the previous lessons to support the development of the program code * Teacher to support Learners and groups as required * Teacher to direct Learners to begin to assembly their project, micro:bit, display box, etc * Teacher to support Learners to finalise their projects * Learners complete the final sections of the Design Sheet * Learners / groups demonstrate or try out each other’s projects and offer feedback. * Learners complete Reflection document | |
| Making | |
| * A suitable display box | |