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STEP BY STEP

Collection of Best practices

Partner/country: Derek Hewie

Title:	**Lesson 4: Sphero**
Content/ Subject areas (*taged with modules*):	Computing
Learning objectives / competences	To be able to use block coding language and adapt a robot's appearance
Description of the activity	Children are introduced to the concept of shaping code to alter the presentation of a device.
Description of the process teaching/ learning strategies used	Children revisit their shape code and the teacher models how to incorporate lights and sounds. Teacher explains what a gyroscope is *What is a spinning top?* *What is a loop?* *What is a possible code for a spinning top with a loop?* Children write pseudocode for this activity. Teacher models the start of the code (may use Youtube explanation to decipher yaw and pitch and roll) Children replicate the start of the code using the if functions. Teacher asks the children to write pseudocode for clockwise and anticlockwise turning. One group's code is used and modelled to whole class. Children then debug the demonstrated code. Children build code and test their ideas. Teacher model how to include further operators (if sphero hits an object). The children show their code to the group
Types of assessment	Assessment of skills through observation and filming of sphero movements
Materials and tools	SpheroEdu app and Sprk+/Ollie sphero
Timing and learning environment	'Unplugged' tasks were completed in the classroom with all 30 children. Coding with the sphero was carried out with groups of 4-8 children.
Why do you consider this practice is innovative?	Children are using robots to understand conditional code
Where did you find it? Internet address	Sphero Education