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STEP BY STEP

Collection of Best practices

Partner/country: Derek Hewie

Title:	Lesson 2: Sphero
Content/ Subject areas (*taged with modules*):	Computing
Learning objectives / competences	To be able to program a robotic device
Description of the activity	Children reminded of sphero, shown coding language in SpheroEdu and main learning task of completing three moves. By the end of the session all children were able to code the Sphero to draw a shape which will include directions back and forward and left and right.
Description of the process teaching/ learning strategies used	Children shown sphero and asked to predict text of coding instruction. *(What do you think the code would look like for different movements?)* Children asked to use pseudocode to code a path for the sphero across the classroom. Children act out the code and test it. Any bug found will be addressed. Children work in small groups to complete two sphero moves forward and backward movement. Teacher uses live demonstrations and guided practice to help children to write the code before they test it. Children show their live action recreations of the code and the class evaluate their performance. Children demonstrate their understanding of the code by completing an independent challenge. Those children who are confident are able to move on to the next challenge, drawing a shape (square or rectangle) and then demonstrate to others what they have to do.
Types of assessment	Assessment of skills through observation
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?	First step towards coding robots independently. Sphero helps children visualise mathematical concepts alongside the concepts of basic coding language.
Where did you find it? Internet address	https://www.sphero.com/education

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