Last Updated: 2/12/2021

KIBO Curricula and Activities

Key: All Skill Levels, Beginner, Intermediate, Advanced

***This activity uses KIWI, an early prototype of KIBO

Title (with Link)	Skill Level*	Grade Level	Hours of Instruction	Goals/Aims	Final Project	Learning Domains	Frameworks and Standards Addressed
Patterns All Around	All	PreK-2nd	8 Lessons, 1-2 hours each (20 hours total)	This curriculum introduces foundational concepts of mathematics such as pattern recognition and construction.	Build and program a robot that can draw a pattern (with a marker attached). These patterns will be combined into a class "quilt"	Mathematics; Computational Thinking/ Computer Science	International Technology and Engineering Educators Association (ITEEA); Common Core Framework (Common Core); MA Digital Literacy in Computer Science Framework (MA DLCS); Positive Technological Development (PTD)
Who Am I	All	PreK-2nd	8 Lessons, 1-2 hours each (20 hours total)	Designed to help young children explore their self-identity, develop and a respect for diversity.	A robot representing a realistic or abstract self-portrait of the student	Socioemotional Learning; Computational Thinking/ CS	ITEEA; Common Core; MA DLCS; PTD
Robotic Animals	All	PreK-2nd	8 Lessons, 1-2 hours each (20 hours total)	A curriculum integrating the natural sciences with robotics and engineering	An interactive robot representing an animal of the student's choice	Life Science; Computational Thinking/ Computer Science	ITEEA; Common Core; MA DLCS; PTD
Where the Wild Things Are	All	PreK-2nd	8 Lessons, 1-2 hours each (20 hours total)	This curriculum introduces foundational literacy using the well-known children's book *Where the Wild Things Are,* by Maurice Sendak.	An interactive robot representing a Wild Thing character dancing in the Wild Rumpus dance	Literacy; Language Arts Computational Thinking/ CS	ITEEA; Common Core; MA DLCS; PTD
Dances from	All	PreK-2nd	8 Lessons, 1-2 hours	A curriculum to explore culture, history, and the	An interactive robot to demonstrate a	Social Studies; Dance and the Arts;	ITEEA; Common Core; MA DLCS; PTD

*Levels correspond with coding stages laid out in Bers, M. U. (2019). Coding as another language: a pedagogical approach for teaching computer science in early childhood. *Journal of Computers in Education, 6*(4), 499-528.

Around the World			each (20 hours total)	arts through dance	cultural dance of the student's choice	Computational Thinking/ CS	
Limudei Code-sh Project	All	K-3rd	3 curriculum units, 20 hours each	The units integrate coding, robotics and computational thinking with Judaic Studies.	Open-ended projects that are connected to the Jewish holidays of Sukkot, Purim, and Yom Ha'atzmaut	Judaic Studies; Computational Thinking/ Computer Science	K-12 CS; IITEEA; Common Core; MA DLCS; PTD
Treasure Island***	Beginner	PreK-2nd	5 lessons, 1-2 hours each (10 hours total)	A curriculum to explore literature and storytelling	An interactive robot that uses sensors to demonstrate a pirate adventure story	Literacy; Language Arts Computational Thinking/ Computer Science	ITEEA; Common Core; MA DLCS; PTD
Everyone Feels***	Beginner	PreK-2nd	3 Lessons, 1-2 hours each (6 hours total)	A curriculum to foster social and emotional competency through robotics	An original robot to demonstrate the student's emotions in a specific situation	Socioemotional Learning; Computational Thinking/ Computer Science	ITEEA; Common Core; MA DLCS; PTD
How Things Move***	Beginner	PreK-2nd	8 Lessons, 1-2 hours each (12 hours total)	A curriculum to introduce foundational movement and physics	A robot that can demonstrate a series of complex actions, such as completing an obstacle course	Physics of Movement and Force; Computational Thinking/ Computer Science	ITEEA; Common Core; MA DLCS; PTD
Sensing the World Around Us	Beginner	K-2nd	4 Lessons, 1-2 hours each (8 hours total)	This curriculum makes foundational biology connections related to animal/human senses.	A robotic animal that uses sensors and incorporates the animal's behaviors and movements	Life Science; Computational Thinking/ Computer Science	ITEEA; Common Core; MA DLCS; PTD
Nuestro Tesoro: Proyecto Pedagógico de	Intermediate	K-1st	12 lessons, 1 hour each	This curriculum (in Spanish) highlights connections between computer science and literacy	Final "Our Treasure" project that involves planning, coding, and sharing KIBO projects	Literacy; Computational Thinking/ CS	Common Core ELA; VA Computer Science Standards of Learning (VA SOL); PTD

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Programación y Robótica con KIBO para lectores emergentes							
KIBO for Emergent Readers	Intermediate	K-1st	15 lessons, 45 min each	This curriculum highlights connections between computer science and literacy using a children's book	Three-part final project that involves planning, coding, and sharing KIBO projects	Literacy; Computational Thinking/ CS	Common Core ELA; VA SOL; PTD
KIBO for Readers	Advanced	2nd+	12 lessons, 1 hour each	This curriculum highlights connections between computer science and literacy using a well-known children's book, *Where the Wild Things Are*	Write a Wild Rumpus composition and program your own Wild Rumpus	Literacy; Computational Thinking/ Computer Science	Common Core ELA; VA SOL; PTD

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