GRADE 2 & 3 MATH AND PHE: Coding Patterns Through Yoga

Summary of Learning Opportunity		
The teacher saw a connection between mathematical patterns and sequencing during yoga and active stretching. In this learning opportunity, students first learned about how symbols can be strung together to create a code. They created symbolic yoga patterns which followed rules (a code), for their classmates to follow. Students then physically tested their yoga patterns, checking and reflecting that their symbol model representations of pattern (code) are reasonable and accessible. They also checked that the movements flowed together properly.		
Curricular Competencies and Content	**Mathematics 2/3**	• Model mathematics in contextualized experiences • Represent mathematical ideas in concrete, pictorial, and symbolic forms • Repeating and increasing patterns (2)
	Physical and Health Education 2/3	• Develop and demonstrate (2)/apply (3) a variety of fundamental movement skills in a variety of physical activities and environments • Proper technique for fundamental movement skills, including non-locomotor, locomotor, and manipulative skills

Numeracy Connections	Instruction and Assessment	Competencies Developed, Practiced, and/or Assessed
NUMERACY: Interprets—Understands the real world problem	1. Students built an understanding of coding through a series of 'unplugged' coding activities (see Hour of Code (free) or Kodable). They were introduced to simple coding language such as a sequence, events, bugs, if/then statements, and loops. In PHE, students learned about different yoga poses.	Develop and demonstrate (2)/apply (3) a variety of fundamental movement skills in a variety of physical activities and environments
NUMERACY: Applies—Translates the scenario into a mathematical problem (mathematizes)	2. Students were then tasked to create their own yoga 'code'. As a class, we agreed on symbols (letters or numbers) to help correspond to specific poses. For example, W2 = Warrior Two, T = Tree Pose. We practiced W2-T, transitioning between the two poses.	Represent mathematical ideas in concrete, pictorial, and symbolic forms
NUMERACY: Solves—Solves the mathematical problem Analyzes—Reflects on the reasonableness of the solution in context	3. The students then created their own yoga codes, and collaboratively tested each others' codes. Students answered the following reflection questions: • Could your classmate follow the code? Were there any bugs in your sequence? How did you know? • What made it hard for them to follow the code? What makes it easier? • What was your partner's feedback to improve your code?	Model mathematics in contextualized experiences Represent mathematical ideas in concrete, pictorial, and symbolic forms Develop and demonstrate (2)/apply (3) a variety of fundamental movement skills in a variety of physical activities and environments

Proficient Student Work, Teacher's Observations/ Assessment, and Reflection