

Lesson Plan Template

Lesson Segment Focus: Introduction to Geometry, Coding Basics & BeeBot Play

Lesson 2 of 3

Course & topic addressed: Shapes and Coding

Date: November 15, 2018 **Grade:** K

Student Outcomes

Specific learning objectives for this lesson.	Students should properly identify geometric shapes in relation to their environment. Students should be able to determine if a shape is 2 or 3 dimensional Students should be able to give a brief explanation of what coding is, and how it can be useful.
Describe the connection to previous lessons. (Prior knowledge of students this builds upon)	Knowledge of basics shapes is useful.
Knowledge of students background (personal, cultural, or community assets)	N/A

State Academic Content Standards

List the state academic content standards with which this lesson is aligned. Include state abbreviation and number & text of the standard.	AR.Math.Content.K.G.A.1 Describe the positions of objects in the environment and geometric shapes in space using names of shapes, and describe the relative positions of these objects. AR.Math.Content.K.G.A.2 Correctly name shapes regardless of their orientations or overall size. AR.Math.Content.K.G.A.3 Identify shapes as two-dimensional (flat) or three-dimensional (solid)
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Academic Language Support

What planned instructional supports might you use to assist students to understand key academic language to express and develop their content learning? What will you do to provide varying supports for students at different levels of academic language development?	Physical manipulatives will be helpful in reinforcing the idea of 3 dimensional shapes. A short video of coding may help students grasp the concept more easily. Some students may need additional supports such as one on one instruction or maybe explore the dynamics of three dimensional shapes though common objects.
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Key Vocabulary

What vocabulary terms/content specific terminology must be addressed for students to master the lesson?	Cone, sphere, triangle, circle, coding.
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Materials

Materials needed by teacher for this lesson.	2-D and 3-D manipulatives. BeeBot
Materials needed by students for this lesson.	2-D and 3-D Manipulatives Individual electronic device

Lesson Timeline with Instructional Strategies & Learning Tasks **(This should be VERY DETAILED)**

Amount of Time	Teaching & Learning Activities	Describe what YOU (teacher) will be doing and/or what STUDENTS will be doing during this part of the lesson.
10 min	<u>Introduction:</u>	To introduce this lesson, I will ask students if they all know their shapes. I will give a short review that will allow students to model their understanding of shapers. Next, I will ask them to describe shapes they see around them. Then, I will ask them if they can tell me what a three dimensional shape is. Students will have no prior knowledge of 3-D shapes so I will start instructions.
20 min	<u>Instruction:</u>	Because this lesson involves geometry and coding both, I will break the lesson into two segments. First we will discuss the 3-D shapes and I will allow student to explore the manipulatives. Once the geometry portion of the lesson is complete, I will give a brief introduction of coding. I will then introduce the BeeBot. I will give a demonstration of how the BeeBot works, then split the students into small groups. I will ask each group to share, and plan a path for the BeeBot. The groups will then share with the class

Amount of Time	Teaching & Learning Activities	Describe what YOU (teacher) will be doing and/or what STUDENTS will be doing during this part of the lesson.
10 min	Closure:	To close the lesson, I will ask students if they enjoyed playing with the BeeBot. I will congratulate them on becoming coder beginners and tell them we will continue the lesson.

Accommodations/Modifications

How might I modify instruction for: Remediation? Intervention? IEP/504? LEP/ESL?	Students with remedial issues, IEP, 504, or LEP accommodations may need additional methods of instruction. For some students, the app may not be beneficial. It would be efficient to have physical worksheets on hand to assist. Also, teachers may need to evaluate students one on one.
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Differentiation:

How might you provide a variety of instructional methods/tasks/instructional strategies to ensure all student needs are met?	Class discussion, instructional videos, use of technology through the Move the Turtle: Learn to Code app are all used to vary instruction in the classroom.
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Assessments: Formative and/or Summative

Describe the tools/procedures that will be used in this lesson to monitor students' learning of the lesson objective/s (include type of assessment & what is assessed).	<input type="checkbox"/> Formative / <input type="checkbox"/> Summative	
	<input type="checkbox"/> Formative / <input type="checkbox"/> Summative	
	<input type="checkbox"/> Formative / <input type="checkbox"/> Summative	

Research/Theory

Identify theories or research that supports the approach you used.	
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Lesson Reflection/Evaluation

What went well? What changes should be made? How will I use assessment data for next steps?	<i>TO BE FILLED IN AFTER TEACHING</i>
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Include supporting material such as slides, pictures, copy of textbook, and handouts for any activities students will be using as part of your lesson.

*adapted from: <http://webcache.googleusercontent.com/search?q=cache:EsQcNWuG1ZoJ:web.mnstate.edu/harms/StudentTeachers/edTPA-LessonPlan.doc+&cd=2&hl=en&ct=clnk&gl=us>; <http://www.moreheadstate.edu/getmedia/cd3fd026-939f-4a47-a938-29c06d74ca01/Lesson-Plan-and-Reflections.aspx>;
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