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WYslice lesson plan #1

Objectives
Students will be able to create solvable mazes while applying grade-level geometry concepts on Kodable Maze Maker https://game.kodable.com/hour-of-code#maze-maker

Standards
5.AP.A.01 Using grade-appropriate content and complexity, compare and refine multiple algorithms for the same task and determine which is the most appropriate.

Practice 3.3 Recognizing and Defining Computational Problems
Practice 6.3 Testing and Refining Computational Artifacts

5.AP.C.01 Using grade-appropriate content and complexity, create programs that include sequences, events, loops, and conditionals, both individually and collaboratively.

Practice 5.2 Creating Computational Artifacts

5.AP.M.02 Using grade-appropriate content and complexity, modify, remix, or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features.

Practice 5.3 Creating Computational Artifacts

Lesson Materials
- Kodable Maze Maker (https://game.kodable.com/hour-of-code#maze-maker or iOS app)
- Maze Maker Challenge handout Download Resources

Introduction to Hour of Code
1. Introduce the Hour of Code.
2. Share that for this activity, we will be completing fun Maze Maker challenges using our math and coding skills!
3. Show learners how to get to the Maze Maker activity. Instructions below:
4. **Accessing the Maze Maker Activity**
    a. 4. Once learners are set up with the activity, invite them to start the guided practice levels. These will unlock the Maze Maker
    b. 5. Model how to create a maze for learners, or show this short video (skip to second 0:09).
    c. 6. Go over the challenges listed on the **Maze Maker Challenges handout**. Tell learners which challenges you want them to complete and options for earlier finishers to continue.

    d. **Note: Challenges are listed in K-5 order. We suggest having students work on the grade-level appropriate challenges before attempting the rest.*
    e. Hand out the Maze Maker challenge handout for students to begin working.
5. Once learners are set up with the activity, invite them to start the guided practice levels. These will unlock the Maze Maker
6. Model how to create a maze for learners, or show this short video (skip to second 0:09).
7. Go over the challenges listed on the Maze Maker Challenges handout. Tell learners which challenges you want them to complete and options for earlier finishers to continue.
8. **Note: Challenges are listed in K-5 order. We suggest having students work on the grade-level appropriate challenges before attempting the rest.*
9. Hand out the Maze Maker challenge handout for students to begin working.

Go to kodable.com/hour-of-code
Scroll to "Make your Own Mazes" and click the button "Play Online"
If learners have a class code, follow the usual steps to log in by clicking "School Profile" and enter the class code. If learners do NOT have a class code, click the "Play Without Saving" button.
Select the "Make Levels" button and choose their grade level

Maze Maker Tips:

Creating the Maze:

- Select the yellow "Build" button on the left to create a new maze
- Select a maze background and click "save"
- Drag the blue tiles to build your maze according to the challenges
- Add stars along the correct path that will solve the maze
- Add decorations to the maze- worms, gnomes, flamingos, and more!

Testing the Maze:

- Test the maze. Is it solvable? Are there bugs? Debug any errors.
- Enter the correct commands in the correct sequence to solve the maze

Sharing the Maze:

- Sharing: Do you have a Kodable account? If students log into their class profile, they can share the mazes they build with the class for others to solve. If you don't have an account, sign up for free ahead of time: www.kodable.com/register.
- Share the maze! When learners select "save", their maze will be added to the class.
- Click the "your class" button to view and solve all of the mazes created by your class.