



| MISSION 1: Welcome to CodeSpace | Time Frame: 30-40 minutes |
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| <p>Project Goal: Students will learn about the CodeSpace learning environment.</p> <p>Learning Targets</p> <ul style="list-style-type: none">• I can navigate CodeSpace.• Identify major parts of the Codespace interface: Mission Bar, Objective Panel, text editor, CodeTrek, Toolbox, and Lesson Navigation Controls | <p>Key Concepts</p> <ul style="list-style-type: none">• Follow instructions in the Lesson Panel carefully. There is a lot of important reading!• Look for “tool icons” to collect tools in your Toolbox as you go.• Some objectives include Hints. It is always a good idea to click on the hints. |
| <p>Assessment Opportunities</p> <ul style="list-style-type: none">• Quiz after Objective 4.• Mission 1 Log (print or digital)• Mission 1 Kahoot! Review | <p>Success Criteria</p> <ul style="list-style-type: none"><input type="checkbox"/> Navigate CodeSpace<input type="checkbox"/> Identify major features of the CodeSpace interface: Editor panel, Lesson panel, Toolbox, CodeTrek, Hints |
| <p>Teacher Materials in Learning Portal</p> <ul style="list-style-type: none">• Mission 1 Slides• Mission 1 Log (print or digital)• Mission 1 Log Answer Key | <p>Additional Resources</p> <ul style="list-style-type: none">• Short CodeBot video (on Youtube and Firia website)• Getting Started with CodeBot on youtube• Mission 1 Kahoot! Review |
| <p>Vocabulary</p> <ul style="list-style-type: none">• Objective: The steps in the mission; has a goal to accomplish• Text editor: Where you type the code• Code: Instructions to the computer• Toolbox: A place in CodeSpace to keep information you learn about programming concepts so you can use it later when you need the information• Simulation: A 3D environment that lets you see the robot move and interact in a virtual world• Debugging: Fixing your code | |
| <p>New Python Code</p> <ul style="list-style-type: none">• No code or programming in this mission | |
| <p>Real World Applications</p> <p>Programmers need to use some type of text editor to create their code. CodeSpace is an IDE, or integrated development environment. It is patterned after other popular IDEs.</p> | |
| <p>Teacher Notes:</p> <ul style="list-style-type: none">• This mission is also the first mission in the Python with CodeX curriculum.• If students have visual problems, like color blindness, switching to the “light” preference can be helpful.• The Mission Log is provided in a digital format or a print format. You can choose the one that is best for your students.• The lesson is extended beyond the four objectives in CodeSpace by adding information on more of the parts of CodeSpace. | <p>Extensions / Cross-Curricular:</p> <ul style="list-style-type: none">• Supports language arts through reading instructions and reflection writing. |



Preparing for the lesson:

Students do not need the CodeBot for this lesson.

The slides and workbook provide the same information as the interactive text in CodeSpace. You can use them as an alternative to students reading the text on the computer, or as a supplement to the reading.

- Log in to CodeSpace (make.firialabs.com) and make sure it works on the browser your students will use. Everyone should use the Chrome browser for best results.
- Look through the slides and workbook. Decide what materials you want to use for presenting the lesson. The slides can be converted to Google Slides. They can be projected on a large screen. The workbook (if used) can be printed or remain digital through your LMS and given to students.
- Be familiar with the mission log (assignment) and the questions they will answer.
- If you have a word wall, or another form of vocabulary presentation, prepare the new terms.
- Watch the videos and decide if you want to show either one at some point during the lesson (beginning or end to build motivation)

Lesson Tips and Tricks:

Teaching tip:

You can use a variety of discussion strategies to get the most engagement from your students. For example, you can have students write their answers before asking anyone for an answer. You can use one of many think-pair-share methods. You can have students write their answer and share with someone, and then have other students share answers they heard from their peers. You can randomly select students to answer.

Pre-Mission Warm-up: -- slide 2

Students can write in their log first and then share, or discuss first and then write in their log.

- What do you know about computer science or programming?

Mission 1 Activities:

Most of this lesson is on the computer, learning about CodeSpace. Students do not need the CodeBot for this lesson, but they will need a computer or laptop and access to the Internet. The Chrome browser works best, but other browsers also support CodeSpace.

Each student will complete a Mission Log.

Students could work in pairs through the lesson, or they can work individually.

Teaching tip: Introduction -- slide 3

This is the introduction to the mission pack, CodeSpace and CodeBot.

Teaching tip: Objective #1 and #2 -- slides 5-8

There is a slide for the objective instructions, and another slide for the goal to complete.

Teaching tip: Objective #3 -- slides 9-10

Students need to click on the “debugging” term and then write about it in their mission log.

Teaching tip: Objective #4 -- slides 11-12

Students will use the camera controls to spin the robot. This can be a little tricky. You may want to practice this first. To meet the goal, the environment will have to spin several times.

Teaching tip: Quiz -- slide 13

Students take a ? short quiz at the end of the mission. Students must select the correct answer to continue. If they click an incorrect answer, it is okay. They stay on the quiz until all right answers are selected. Quiz questions below.



💡 Teaching tip: CodeSpace Review -- slides 14-16

More information about CodeSpace is given, such as CodeTrek and Hints. Then students label the parts of CodeSpace as part of their mission log assignment.

👤 Post-Mission Reflection:

The post-mission reflection is set up in the 3-2-1 format. You can change the questions if there is something else you want to emphasize with your students.

- Three things you learned
- Two things you want to learn more about
- One question you have

You can show a CodeBot video to increase motivation, if you didn't show one in the last lesson.

You can use the Mission 1 Kahoot as a lesson review. (link above)

End by collecting the Mission 1 Log.

SUCCESS CRITERIA:

- Navigate CodeSpace
- Identify major features of the CodeSpace interface: Editor panel, Lesson panel, Toolbox, CodeTrek, Hints

❓ Quiz Questions

❓ Your First Mission Quiz

Are you ready to learn some Python coding with your **physical** device?

+5 XP

Yes. This is simple! It looks too complicated. I don't think I can.

Select the two things you learned in this mission.

+5 XP

How to move the camera How to control the weather How to open an objective
 How to run a half marathon

Answered 2 of 2