

# Lesson 2.07: Project ## Learning Objectives Students will be able to... \* Use knowledge of lists, Booleans, conditionals, and while loops to create a text-based adventure game. ## Materials \* [Project Spec - Text Monster] ([printable project Spec]) ([editable project spec]) \* [Text Monster Starter Code] ([https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/2\\_unit/07\\_lesson/text\\_Monster\\_Starter\\_Code.py](https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/2_unit/07_lesson/text_Monster_Starter_Code.py)) \* [Alternate Project Spec - Todo List] ([printable Alternate project Spec]) ([editable Alternate project spec]) \* [Editable Grading Rubric] ([https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/2\\_unit/07\\_lesson/rubric.docx](https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/2_unit/07_lesson/rubric.docx)) \* Sample Solutions (access protected resources by clicking on "Additional Curriculum Materials" on the [TEALS Dashboard]) ## Preparation \* Read through the [Associated Readings 2.7] (<https://tealsk12.gitbook.io/intro-cs-2/readings#2-7>) \* Try creating your own variation on the Text Monster code so you are familiar with the potential challenges and bugs your students will hit. \* Review [4 Steps to Solve Any CS Problem] \* Update the Project Spec of your selected project as needed to meet your grading requirements

Day 1 Pacing Guide		Days 2 - 9 Pacing Guide	
**Duration**	**Description**	**Duration**	**Description**
10 Minutes	Project Overview/Demo	40 Minutes	Design
5 Minutes	Debrief	10 Minutes	Review
40 Minutes	Project Work	5 Minutes	Debrief

## Instructor's Notes

### 1. 4 Steps to Solve Any CS Problem \* Review [4 Steps to Solve Any CS Problem]

### 2. Project Overview/Demo \* Distribute the project spec to all students and walk them through the goals and requirements of the project. \* Show a demo of a completed project. \* Go over specific design considerations from the project spec: \* Introduce the concept of global variables and how they will be useful here. \* Identify the importance of the "User Pocket" and how to use a list along with 'append' and 'remove' for this information.

### 3. Design \* Have students stay at their desks and write down what lists they'll need. \* They should break up the project into parts: parsing user input, keeping track of players position, returning what is at the player's position.

### 4. Debrief/Review \* During discussion and wrap up at the end of class, get a feeling for where students are in the project. \* During the review the next morning cover the topics/areas that students are struggling on and present tips, suggestions, and goals for that day.

## Accommodation/Differentiation \* Make sure to do status checks with all students throughout the project. \* Identify students that are struggling on the project after the first few days and provide additional scaffolding & support as needed. \* For any students that are advancing rapidly through the project, give them extension ideas such as adding a new feature or floor to the game. \* Advanced students can also be paired as tutors/helpers with struggling students.

## Grading

Objective	Lesson	Points	Percentage
Student correctly identifies data types (Lesson 2.01) - Assessed in Unit 3	2.02, 2.03	9	36%
Student correctly uses conditionals to maintain flow of control	2.04, 2.05	3	12%
Student correctly uses lists	2.06	5	20%
Student can correctly use the while loop		5	20%
Student uses naming/ syntax conventions and comments to increase readability		25	
<b>Total Points</b>			

## Scoring Consideration You may need to adjust the points in order to fit your class. Treat the percentages as a guide to determine how to weight the objectives being assessed.

## Forum discussion [Lesson 2.07: Text Game (TEALS Discourse Account Required)] (<https://forums.tealsk12.org/c/2nd-semester-unit-2/lesson-2-07-text-game>) [Project Spec - Text Monster]: [project.md.html](#) [Alternate Project Spec - tODO List]: [project.md.html](#) [Text Monster Game - Example Code]: [project\\_file.py](#) [TEALS Dashboard]: <http://www.tealsk12.org/dashboard> [4 Steps to Solve Any CS Problem]: <https://github.com/TEALS-IntroCS/2nd-semester-introduction-to-computer-science-principles/raw/master/units/4%20Steps%20to%20Solve%20Any%20CS%20Problem.pdf> [printable project Spec]: [https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/2\\_unit/07\\_lesson/project.pdf](https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/2_unit/07_lesson/project.pdf) [editable project spec]: [https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/2\\_unit/07\\_lesson/project.docx](https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/2_unit/07_lesson/project.docx) [printable alternate project Spec]: [https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/2\\_unit/07\\_lesson/alternate\\_project.pdf](https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/2_unit/07_lesson/alternate_project.pdf) [editable alternate project spec]: [https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/2\\_unit/07\\_lesson/alternate\\_project.docx](https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/2_unit/07_lesson/alternate_project.docx)