



A background image of a Scrabble board with various letter tiles and a pink tile labeled "DOUBLE LETTER SCORE".

# Summative Task: Design a Guessing Game

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## Design Problem & Constraints

The company **EduGames** has hired you to create educational guessing games.

The company wants you to **create a short educational guessing game** that will require the user to guess the correct answer, based on a specific subject taught in school. The company is focusing on **games for grade 6 middle school students**.

The company has provided **three constraints you must follow** in your design:

1. The game must be no longer than 5 minutes to play
2. The game must be able to keep track and display a final score
3. There must be multimedia (ASCII artwork, sound, visuals) used to enhance the game

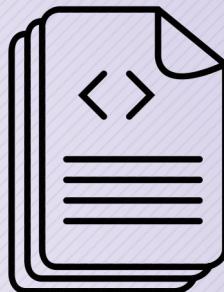
# Summative Task: Guessing Game

## Teacher / Developer Expectations

1. The entire program will be explained with one flowchart ([www.draw.io](http://www.draw.io))
2. Selected algorithms explained using IB pseudocode (min. 2 examples)
3. The program is coded using Python 3 ([www.python.org](http://www.python.org))
4. Comment header, commenting, camelCase, and whitespace



File 1: designPlan.pdf



File 2+: guessingGame.py

You may decide to submit additional files, for example:

**Python Files:** e.g. asciiArtwork.py

**Sound Files:** e.g. winner.wav

## DP Computer Science: Performance Task-Specific Rubric

	<b>Design</b> Pseudocode, Flowcharts, Prototypes	<b>Documentation</b> Comments, Terminology, Whitespace	<b>Application</b> Meeting the Success Criteria	<b>Computational Thinking</b> Problem Solving and Algorithmic Design
<b>4</b>	Developed a <b>highly effective</b> design process, which <b>consistently</b> takes into consideration the success criteria of the end users in order to develop a <b>complete</b> solution.	The documentation is <b>exceptionally clear</b> , uses <b>correct</b> terminology, and <b>completely</b> covers all required criteria.	The product is <b>complete</b> , and is <b>highly effective</b> at applying data structures and algorithms <b>correctly</b> .	The product and documentation show evidence of an <b>independent, thorough, and complete</b> understanding of <b>computational thinking skills</b> , procedural problem solving, and algorithm design.
<b>3</b>	Developed an <b>effective</b> design process, which <b>generally</b> takes into consideration the success criteria of the end users.	The documentation is <b>generally clear</b> , uses <b>accurate</b> terminology, and <b>substantially</b> covers all required criteria.	The product is <b>substantial</b> , and is <b>effective</b> at applying data structures and algorithms with <b>minor inaccuracies</b> .	The product and documentation show evidence of a <b>substantial</b> understanding of <b>computational thinking skills</b> , procedural problem solving, and algorithm design <b>with minimal assistance</b> .
<b>2</b>	Developed a <b>moderately effective</b> design process, which <b>occasionally</b> takes into consideration the success criteria of the end users.	The documentation <b>lacks clarity</b> , uses <b>inaccurate</b> terminology, and <b>partially</b> covers all required criteria.	The product is <b>partially incomplete</b> , and is <b>moderately effective</b> at applying data structures and algorithms with <b>numerous errors</b> .	The product and documentation show evidence of a <b>partial or incomplete</b> understanding of <b>computational thinking skills</b> , procedural problem solving, and algorithm design <b>with moderate assistance</b> .
<b>1</b>	Developed an <b>ineffective</b> design process, which <b>rarely</b> takes into consideration the success criteria of the end users.	The documentation is <b>unclear</b> , uses <b>majorly inaccurate</b> terminology, and <b>incompletely</b> covers all required criteria with <b>serious misunderstandings</b> .	The product has <b>evidence of significant misunderstandings</b> , and is <b>ineffective</b> at applying data structures and algorithms with <b>significant errors</b> .	The product and documentation show evidence of a <b>substantial misunderstanding of computational thinking skills</b> , procedural problem solving, and algorithm design, and <b>requiring considerable assistance</b> .

*Adapted from the IBO DP Computer Science IA Expectations and Guide*