

Math 8 LG 16

Puzzles and Games



INTRODUCTION:

Many games and puzzles require logic and mathematical reasoning. You will get an opportunity to demonstrate your logic and mathematical reasoning through exploration of puzzles and/or games.



LEARNING GUIDE EXPECTATIONS:

On the completion of this learning guide you will be able to:

- 1) use logic and reasoning to explore, make connections, predict, analyze, generalize and make conclusions.



EVALUATION:

You are ready to progress to the next learning guide when you can demonstrate your understanding of the above expectations. Complete the assignment at the end of this learning guide.



RESOURCES NEEDED:

Necessary materials, games and/or puzzles.

LEARNING ACTIVITIES:



Expectation #1: Use logic and reasoning to explore, make connections, predict, analyze, generalize and make conclusions.

Choose one of the following options:

1. Play one of the games provided by your teacher.
2. “Cube Hotel” problem.
3. Play any number of the “math games” in the textbook (pages 40, 74, 116, 154, 192, 240, 280, 322, 364, 404, 440, 470).
4. Find a game online that involves logic and mathematical reasoning.
5. Bring in games from home that involve logic and mathematical reasoning (ex Yahtzee).
6. Design your own game that involves logic and mathematical reasoning.

Math 8 LG 16 – Puzzles and Games Assignment

You need to identify 3 competencies that you demonstrated in the games you played. They can be all from 1 game or you may use more than 1 game. They can be a core or curricular competency. The competencies are listed below:

CORE COMPETENCIES

Communication and Collaboration:

- I can find information and show what I know.
- I work with others and do my share.
- I talk and listen to others.

Creative Thinking:

- I can generate new ideas.
- I can build on other's ideas
- I can make my ideas work or change what I am doing.

Critical Thinking:

- I can analyze and make judgements.
- I can consider a variety of perspectives.
- I can question and investigate.
- I can develop and design.

Personal and Social:

- I demonstrate respect of self and others.
- I am a collaborative team member.
- I am a positive role model and demonstrate leadership.
- I make healthy, safe and wise choices.
- I demonstrate a positive cultural identity and understand differences.
- I set goals and persevere to achieve them.

CURRICULAR COMPETENCIES

Interpret:

- I can understand what the problem is about.

Model:

- I can create a model to represent the situation.

Solve:

- I can solve the problem.

Analyze:

- I can use logic to justify the process arrived in solving the problem.

Communicate:

- I can effectively communicate and collaborate with others.

These are 3 Core/Curricular competencies that I demonstrated:

1st Competency

Game played: _____

Competency demonstrated: _____

How I demonstrated this competency in the game: _____

2nd Competency

Game played: _____

Competency demonstrated: _____

How I demonstrated this competency in the game: _____

3rd Competency

Game played: _____

Competency demonstrated: _____

How I demonstrated this competency in the game: _____
