

AdventureLand Educational Field Trip Lesson Plans

Lesson Plan: Math in Motion (Grades 3-5)

Overview:

This lesson will focus on applying math concepts through interactive activities at AdventureLand, allowing students to understand and enjoy mathematics in real-world contexts.

General Preparation and Follow-Up Activities for All Grade Levels:

Before You Go:

- Review the map and list of activities from AdventureLand's website.
- Discuss the importance of teamwork, rules, and safety of each activity.
- Prepare questions to ask staff about the operation and design of the attractions.

Follow-Up:

- Discuss the importance of teamwork and playing by the rules.
- Research the history and mechanics of a chosen game or sport.
- Design and play a mini version of an activity, using math or physics concepts learned during the trip.

Standards:

Alabama State Standards for Mathematics:

3rd Grade: 3.13, 3.14

4th Grade: 4.10, 4.11

5th Grade: 5.16, 5.17

Essential Question:

How can we use math to predict and improve our performance in games and activities?

Student Learning Objectives:

Students Will:

Identify and measure angles in mini-golf.

Calculate averages and probabilities in arcade games.

Demonstrate understanding of basic arithmetic through hands-on activities.

Discussion Prompts:

How do angles affect your mini-golf game?

What is probability, and how does it apply to arcade games?

How can you use math to improve your game scores?

Curriculum Content:

Activities:

Putt-Putt Geometry:

Lesson: Introduction to angles and shapes.

Activity: Map out a mini-golf course and calculate angles needed to hit the ball into the hole.

Worksheet: "Create Your Own Golf Course" with angle measurements and predictions.

Arcade Math:

Lesson: Understanding probability and basic arithmetic.

Activity: Play arcade games and record scores, then calculate averages and probabilities of winning.

Worksheet: "Arcade Score Tracker" with math problems related to their scores.

Follow-Up Project:

Design a simple putt-putt hole or arcade game using geometric shapes and present it to the class.