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## Math Unit | Grades 6-7 | Lesson 1: What Varies at Silver Dollar City?

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### Lesson Description

This lesson is great for introducing the idea of variables. What better way to learn a concept than to experience it yourself? Two days are never alike at Silver Dollar City and this activity challenges the students to think about what *really* stays the same and what could change based on other factors. Bring Algebra to life as students roam the park and discover how math is tied into so many things!

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### Concepts

Variable

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### Objectives

Students will:

- Understand the concept “variable.”
- Use Silver Dollar City examples to connect a math topic to real-life scenarios.

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### Content Standards

#### National Standards in Mathematics

**Topic:** Variables

- **Standard 8:** Understands and applies basic and advanced properties of functions and algebra.
  - Benchmark 3, Grades 3-5: Knows that a variable is a letter or symbol that stands for one or more numbers.
  - Benchmark 1, Grades 6-8: Knows that an expression is a mathematical statement using numbers and symbols to represent relationships and real-world situations (e.g., equations and inequalities with or without variables).
  - Benchmark 2, Grades 6-8: Understands that a variable can be used in many ways (e.g., as a placeholder for a specific unknown, such as  $x + 8 = 13$ ; as a representative of a range of values, such as  $4t + 7$ ).



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- Benchmark 4, Grades 6-8: Understands the basic concept of a function (i.e., functions describe how changes in one quantity or variable result in changes in another).

### Grade Level Expectations: MA 4 1.6, 3.1

Represent and analyze mathematical situations and structures using algebraic symbols.

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### Time Required

20 minutes

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### Materials

- Student Activity Sheet found on the Kids-U-Cation website
  - Park map
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### Procedures

1. Students will need to be aware of variables before completing this exercise.
  2. Print out student activity sheet from the Kids-U-Cation website.
  3. Explore the park (if it helps clarify some of the questions) and answer questions based on what does and does not vary around Silver Dollar City.
  4. Turn in activity to the teacher for a participation or accuracy grade.
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### Closure

Review the key points of this lesson by discussing the following:

- What is a variable?
  - Give some examples of things we encounter in our daily life that may vary.
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### Assessment/Independent Practice

Give an assignment or test of your choice.

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## What Varies at Silver Dollar City?

For this illustration, Silver Dollar City is open everyday from 9:30am to 7:00pm. It costs \$50.00 for an adult or \$40.00 for a child to enter the park.

Which amounts are variables? Write a "V" next to them.

- \_\_\_\_\_ 1. The total land area Silver Dollar City covers.
- \_\_\_\_\_ 2. The number of people who visit Silver Dollar City each day.
- \_\_\_\_\_ 3. The number of hours the park is open each day.
- \_\_\_\_\_ 4. The amount of water that fills the pond at Geysers Gulch.
- \_\_\_\_\_ 5. The amount of food the restaurants use each week.
- \_\_\_\_\_ 6. How much money each person pays to visit Silver Dollar City.
- \_\_\_\_\_ 7. The length of the train tracks through the park.
- \_\_\_\_\_ 8. The number of squirrels in the trees.
- \_\_\_\_\_ 9. The amount of rain that falls on the park each day.
- \_\_\_\_\_ 10. The number of people that come to Molly's Mill buffet breakfast each day.

## Silver Dollar City Park Map

