Amusement Park Map Project

Learning Targets
- Identify & Calculate Area & Perimeter 5.MD.4
- Identify & Calculate Volume 5.MD.3
- Create a coordinate grid 5.G.1
- Plot & Identify Points on a Coordinate Grid 5.G.1-2
- Identify 2D shapes within Park Map 5.G.4
- Adding, Subtracting, Multiplying, & Dividing Decimals 5.NBT.B.7
- Adding, Subtracting, Multiplying, & Dividing Fractions 5.NBT.B.6
Project Materials:
1. Amusement Park Project Direction Packet
2. Posters (one per group)
3. Yard Sticks & Rulers
4. Scrap Paper
5. Pencils, Markers & Colored Pencils
6. Exit Ticket
7. Project Rubric & Self Evaluation

Time Line: 3 Class Periods
• Day One: Introduction to project & plan amusement parks (draft)
• Day Two: Create final copy of maps & create park advertisements
• Day Three: Group presentations, self evaluations & exit tickets
Goal #1: Create an Amusement Park!

This information needs to be located on both your park map and your park advertisement!

1. Founders:

2. Park Name:

3. Park Location:

4. Admission Cost:
Goal #2: Size of Amusement Park

- You have a plot of land that is $3\frac{3}{4}$ miles by $1\frac{3}{4}$ miles.

- Note: By law, you need to border your land with fencing, for security purposes. You also need a fence around your actual park.
Goal #2: Size of Amusement Park

• In your amusement park, you are required to have certain facilities to meet code.
  – Welcome area, rest rooms (4 total), food plaza, eating pavilion, 8-10 roller coasters, water park, train that travels around/through park, and a petting zoo.

• Use these requirements to map out your rough draft of your amusement park. Your park needs to fit into your plot of land; however, your park does not have to take up your whole plot of land. Also, you do **NOT** have to make your amusement park a perfect square or rectangle.
Goal #3: Identifying Facilities

- Your facilities must be represented by 2D shapes on your map.
  - Welcome area: square
  - Rest rooms: kite
  - Food plaza: trapezoid
  - Eating pavilion: rectangle
  - 8-10 roller coasters: rhombus (include each name)
  - Water park: parallelogram
  - Petting zoo: pentagon
  - Body of water (i.e., lakes, ponds): octagon
  - Train: line segments
Goal #3: Identifying Facilities

- Your tourists need to know the coordinates of each of your attractions! Be sure to plot four coordinate points per facility/geographical feature to record.
  - Welcome area
  - rest rooms
  - food plaza
  - eating pavilion
  - 8-10 roller coasters (include each name)
  - water park
  - petting zoo
  - bodies of water (i.e. lakes/ponds)
  - train: line segments (record each segment)
Goal #3: Identifying Facilities

- Your tourists need to know what each shape represents on your map! Create an easy to read Map Key or Legend that labels each facility in your park. You are NOT limited to just these facilities. You may add facilities, landmarks, geographical features (depending on where your park is). Be sure to label each item specifically in your Map Key or Legend. This should be in a box in the lower right hand corner of your map.
Goal #4: Create a Coordinate Grid

• First, have your rough draft approved by Miss Henton.

• Then, create your “final copy” map. You must first create a coordinate grid on your poster. Be sure to label each axis!

  (Be sure to add your fence around your land & park!)
Example of Cedar Point Map
Goal #5: Creating Map

- After creating your coordinate grid, begin making your map!
- Once you are done plotting your different items and plotting their points, be sure to make your map creative, colorful and inviting. You want your tourists to be excited about visiting your park!
Goal #6: Creating an Advertisement

Once your map is complete, you need to create a colorful advertisement for your park. You are trying to convince the public to visit your park over other amusement parks in the area. Use your persuasive skills to advertise for your park!

- Hints: May want to include pricing, special pricing deals, facilities, geographical features, catchy lingo, descriptive adjectives and ride names!
Exit Ticket

1. What is the total area of your plot of land?

2. How much fencing would you need to build a fence around your plot of land?

3. If fencing cost $4.95 per foot, how much would it cost to fence the perimeter of your land? Be sure to include 6.75% tax to your total.

4. What is the area of your actual amusement park?

5. How much would it cost to build a fence around your actual park? Be sure to include 6.75% tax to your total.

6. How much would the this fencing cost?

7. Your waterpark has a huge wave pool. According to the wave pool diagram, how much water would you need to fill it?

Wave Pool

17 ft

13 ft

25 ft
Exit Ticket

Record your coordinates!

1. Welcome area: _____ _____ _____ _____

2. Rest rooms:
   a. _____ _____ _____ _____
   b. _____ _____ _____ _____
   c. _____ _____ _____ _____
   d. _____ _____ _____ _____

3. Food plaza: _____ _____ _____ _____

4. Eating pavilion: _____ _____ _____ _____

5. 8-10 roller coasters
   a. _____ _____ _____ _____
   b. _____ _____ _____ _____
   c. _____ _____ _____ _____
   d. _____ _____ _____ _____
   e. _____ _____ _____ _____
   f. _____ _____ _____ _____
   g. _____ _____ _____ _____
   h. _____ _____ _____ _____
   i. _____ _____ _____ _____
   j. _____ _____ _____ _____

6. Water park: _____ _____ _____ _____

7. Petting zoo: _____ _____ _____ _____

8. Train: line segments
   (record each segment)

Remember to include the name of each roller coaster!
<table>
<thead>
<tr>
<th>Category</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neatness and Organization</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>The poster and advertisement are presented in a neat, clear, organized fashion that is easy to read.</td>
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<tr>
<td>Working with Others</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Student was an engaged partner, listening to suggestions of others and working cooperatively throughout project.</td>
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<tr>
<td>Mathematical Concepts</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Accurately completed mathematical concepts (coordinate graphing, area, perimeter, volume, multiplying decimals/fractions) to solve the problems.</td>
<td></td>
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</tr>
<tr>
<td>Park Advertisement</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Created a persuasive advertisement that is inviting to audience members.</td>
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<tr>
<td>Completeness of Project</td>
<td>4</td>
<td>3</td>
<td>2</td>
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<tr>
<td>Each aspect of the project (Goals #1-#6) are completed neatly and accurately.</td>
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Total: /20 points

Comments: