Legoland Project Kit

Congratulations! You're going to Legoland! Use these project ideas to enrich your educational experience in the park. Read through them before you go to make sure you understand the terms and concepts, and to help you determine if you want to expand upon any of them. You'll find fun facts and printable worksheets at the end of this packet.

a- elementary level activity b- middle school level activity c- high school level activity

Language Arts

Legoland is full of stories just waiting to happen! Using attractions, models, rides, and activities, tell a story. What kind of things can you find in the park to spark your creativity? Your imagination can go wild!

a. Pick something in the park to create a story around. Share the story with your group orally. Write down a title page for your story, complete with title and author. Draw a cover illustration.
b. Write a short story using something in the park as your prompt. You can even combine things to create a more intricate and complex storyline. Make sure to have characters, a setting, a plot, a conflict, and its resolution.
c. Create a skit or play around something you've found in the park. Write a basic screenplay, including setting and prop descriptions and script. Share it with your group, or go the extra mile: cast it and act it out!

Materials required: Notebook, pen/pencil
Submission: A copy of your writings/drawing, and any pictures/videos

Teaching or learning notes:

Applied Math

How much money does Legoland make from visitors? Legoland averages $80 per ticket sold. How many people come to Legoland every day? There are several ways to estimate this: ask someone who works at the park, find out the area of the park and divide it into representative areas that you can count and multiply, or find the information on the internet. How much does Legoland make in a day? In a month? In a year?

a. Talk about the math and make verbal estimates with your teacher. Write down your math.
b. Do the calculations on your own and write everything down. Talk about expenses and how those affect Legoland's profit.
c. Do the calculations, write it down, and ask more questions to determine Legoland's estimated costs (don't forget staff, the land lease, etc.). Estimate gross and net incomes per day, month, and year. Run a hypothetical model to see how the numbers change if attendance or costs decline or increase.

Materials required: Notebook, pen/pencil, calculator or smartphone (optional)
Submission: Your calculations, estimations, and conclusions, and any pictures/videos

Teaching or learning notes:

Science

Check out the physics of fast-paced rides! All ride designs utilize the principles of Conservation of Energy, inertia, friction, potential and kinetic energy, and gravity. What makes the fast rides go fast? Why do rides slow down when they are going uphill? Why do you get flung from side to side around corners? What is inertia and what affect does it have on ride physics? How do rides use potential and kinetic energy to keep them going? How is energy “conserved” during the ride? What parts do friction and gravity play? What are Newton’s three laws of motion and can you see them working on the rides?

a. Discuss some of the simpler concepts and try feeling the forces at play on some rides. Compare rides to one another and talk about what goes into building them. Draw one of the rides.
b. Discuss the concepts and identify as many physics concepts as you can on some rides. Compare rides, and then pick one ride at the park to diagram/map and include the forces you can identify to define how that ride works.
c. Discuss the concepts, identify them on some rides, and diagram one of them including its use of physics. Design your own ride using the things you’ve learned.

Materials required: Notebook, pen/pencil
Submission: A copy of your drawings, diagrams, maps, or designs, and any pictures/videos

Teaching or learning notes:

Social Studies

Visit Miniland USA and take a look at some of America's largest cities. Prior to your trip, or on your trip via a smartphone or other device, learn more about one of the following cities: New Orleans, San Francisco, or New York. While at the park, try to find things in the model that you learned about in your studies? What is the culture like there? How is that reflected in the city design? Can you find some historical locations?

a. Take note of at least one part of a city model which corresponds with something you learned. Write it down in your notebook and/or draw a picture.
b. Find three aspects of a city model which you can identify and describe. Write about these in your notebook.
c. Identify three aspects of a city model which you can describe. Pick one to write about in detail. Do more research after your trip and discuss how the history of a location affects its architecture and engineering.

Materials required: Notebook, pen/pencil, smartphone (optional)
Submission: A copy of your writings/drawings, and any pictures/videos

Teaching or learning notes:

Fun Facts

- There are five LEGOLAND's in the world. 3 of them are in Europe (Germany, Denmark, and England) and two in the United States (California and Florida).
- The largest LEGO shop in the entire United States is at LEGOLAND California!
- There are now more than 30,000 LEGO models in the park that are made up of over 60,000,000 LEGO pieces.
- The largest LEGOLAND model in the park is "Bronty" the dinosaur, and it took more than 2,000,000 LEGOs to build!
- The smallest LEGO model is a pigeon that is on a building in Miniland Washington, D.C., and is made of 4 LEGO pieces.
- LEGOLAND employees are called "Model Citizens" and will trade their mini-figures worn on their LEGO name tags with any child who asks.
- The SEA LIFE Aquarium houses California freshwater fish that are found in native rivers, lakes, and streams.
- The Pirate Reef holds approximately 155,000 gallons of water! That's like 3,875 bathtubs full of water!
- There are dozens of props and locations meant for good photo opportunities -- make sure to look for and use as many as possible!
- If you get stuck in a lot of lines and need somewhere to get your energy out, LEGOLAND has built parks for the kids to run around and get their energy out!

Legoland

1. Draw a picture of your favorite ride or exhibit in the park.

2. Describe your favorite ride and why you love it..

3. What is one new thing you learned about Legos in the park?

4. Draw or describe one example of engineering you saw.

5. Describe or draw one historical thing you found in the park.

6. How do engineers use math to design rides?

BONUS:

Lego is a multi-million dollar company. Why do you think they do so well? What is it about their products that people love? Why do you love them? What else have they done to expand and capitalize on their brand? (Hint: Where are you right now?)