California Adventure Project Kit

Congratulations! You're going to California Adventure! 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

Visit Animation Academy! Learn all about animation, and what it takes to create a story with drawings. What goes into creating a rich story using only drawings? How has animation techniques changed over the years? Talk about how visual arts communicate ideas and provoke emotion. How do small changes to drawings affect the storyline? Can you use drawings to tell a story?

a. Draw your own animated character. Talk or write about it.
b. Write a short story with illustrations. Talk about it.
c. Write a short story with illustrations. Try creating your own animation. Try to show different emotions through your character(s). Write a short description of how visual arts can improve communication.

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

Teaching or learning notes:

Applied Math

How far do you travel on Mickey's Fun Wheel?! Mickey's Fun Wheel has a diameter of 150 feet (radius of 75 feet). Using the equation for the circumference of a circle (πd) [$\pi = 3.14$] and counting the number of times you go around (in the traditional stationary gondolas), calculate the distance you travel while riding. How long does it take you to go around during the revolution where you don't stop? At what rate are you travelling? Why is it important for the engineers of the ride to understand this math?

a. Discuss the concepts involved in this calculation. Learn the words "circumference", "radius", "pi", "distance", and "rate". Calculate the distance travelled and record your calculations.
b. Discuss the concepts and use math to calculate distance and rate. Record your calculations and talk about how the numbers would change if any of the variables were to change.
c. Calculate distance and rate for the stationary gondolas. Record your calculations. Also, try to estimate distance and rate for the swinging gondolas. How do they compare?

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 rollercoasters! 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

California has a rich and vibrant history! There is SO much to learn all throughout the park, so take some time during your day to learn something new!

a. Take note of three things you've learned about California on your visit. Write these down in your notebook and/or draw a picture.
b. Take note of three things you've learned at California Adventure, and pick one of them to write a short essay about. Include facts as well as your own opinion on the event's significance. How did that event help to shape the way things are today?
c. Take note of three things you've learned at the park, and choose one to learn more about. See what you can find at the park that gives more detail on the event. Research the event more. Why do you think the creators of California Adventure chose to include that event? What is its lasting significance? How would you feel if you were there? How would our world be different if it didn't happen? Write an essay about your discoveries.

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

Teaching or learning notes:

Fun Facts

- One of the more popular fun facts is that you can find *hidden* Mickey Mouse faces in hundreds of places throughout the park. Some are easy to find, others can be really difficult!
- Be careful on the bridge to Pacific Wharf, it's simulated to *shake* like an *earthquake*! (or, rather, a subtle tremor.)
- California Adventure is located in Disneyland's old parking lot.
- The original plan for building California Adventure was to make a "WestCot" (like EpCot in Florida's Disneyworld), but its estimated cost was too great.
- The Red Car Trolley looks like it is getting its electrical power from the street wires above, but it's not. The "Pacific Electric" Red Car Trolley is actually powered by internal batteries.
- California Adventure has its own newspaper called the Buena Vista Bugle that you can pick up for free as a souvenir.
- Throughout Condor Flats, you'll see the number "47" appear in quite a few places. This is in dedication to Chuck Yeager, the first man to break the sound barrier in 1947.
- California Screamin' tops out at *55 mph* and is the 8th longest roller coaster in the world!
- Radiator Springs Racers cost $200,000,000 to make! It's the most expensive ride ever built for a theme park!
- At the end of the Monsters Inc. ride, Roz (at the end of the ride) will often single out the riders specifically and talk to them.
- All of the mailboxes that are seen throughout the park (especially on Buena Vista Street) are real, functioning mailboxes with their own address.
- At the end of the World of Color water fountain show, there is a single and small orange geyser that represents Walt Disney.
- In A Bug's Land, there are many clover decorations around, but there is only *one* four-leafed clover -- and that is by the entrance to the Francis' Ladybug Boogie.
- The final 21 foot drop at the end of the Grizzly River Run is designed and intended to twist you around a full 360° to maximize the chance that everyone will get wet!
- The World of Color cost $75,000,000 to design, manufacture, and build!
- California Screamin' is the only outdoor ride in all of Disneyland or Disney World Resorts that takes you upside down!

California Adventure

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

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

3. What is one thing you learned at the Animation Academy?

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:

California Adventure has many different types of rides. List 5 rides including one of their features which makes them unique at the park. Then briefly explain why the park would want to have so many different types of rides for their guests.