# Fleet Science Center Project Kit

Congratulations! You're going to Fleet Science Center! Use these project ideas to enrich your educational experience. 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

There is so much to see at Fleet! Choose one of the exhibits that you'd like to explore deeper. Then complete one of the activities below:

a. Imagine you are only 1 inch tall! Explore your favorite exhibit and talk about how it might look or feel if you were very small. Use your exploration to create a story and tell your story to others. You can even draw a picture for your story and write it down if you want!
b. Imagine you were going to teach about your favorite exhibit to a class of students just like you! How would you get your students excited about it? What would you teach them? Write a short lesson plan and then find someone to give your lesson to. Don't forget to include questions to get your student(s) thinking!
c. Imagine you lived 1000 years ago. If you saw your exhibit for the first time, what would you think? What would you try to do with it? Could you find a useful purpose for it? How could you use it to improve your life or the lives of others? Write a short essay about your ideas.

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

Teaching or learning notes:

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**Applied Math**

Let's play at the tinkering studio! As you imagine, create, design, and build, identify the math all around you. Engineers, designers, builders, and scientists use math every day to do their jobs.

a. Talk about the math you used to build one of your creations and make verbal estimates with your teacher. Write down your math.
b. Identify the math needed to create your design. Do the calculations which describe your creation and write everything down.
c. Take a look at what other's are building. Identify as many types of math as you can. Draw pictures of the designs you see and label them with the math needed to create it.

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

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**Science**

There is more science in Fleet to see and do than you could possibly do in one day! Take some time with one of your favorite exhibits to document the science. What questions were the scientists asking that inspired them to think of this exhibit? How did they go about testing their ideas? What did they need to build their exhibit/experiment? What questions were answered from their experimenting?

a. Talk about what goes into doing an experiment. What methods did the scientists use to create the exhibit? Draw or write about your ideas.
b. Practice using the Scientific Method to analyze the exhibit. What was the scientist's initial question? What was their hypothesis? How did they test it and what did they conclude? Write down your analysis.
c. Design your own experiment. After analyzing an exhibit and how it's creators used the Scientific Method, use the same method to ask and answer your own question. Design your own exhibit to show others your work or explain how you can use the same exhibit to answer your own question. Draw a picture or explain it in a short essay. If you want, take it a step further and actually perform your experiment and write down your conclusions!

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

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**Social Studies**

San Diego is a popular tourist location. Throughout your trip pay attention to the people around you. Can you tell if any of them are foreign travellers? Do some come from other states? How can you tell? What other languages can you hear? How far did they travel? Do they look like they're enjoying their vacation? How large are their groups that they are travelling in? How well do you feel Fleet is representing America, California, or San Diego?

a. Pay attention to the people around you. Find at least one group of tourists and see if you can find out where they are from. Be discreet and polite while you look and listen for clues. Write down the clues you found. If you are brave, ask them where they are from and tell them you hope they are having fun on their trip!
b. See how many languages or accents you can identify. Where are those languages or accents spoken? What can you guess about the travellers based on their language or accent? How far did they have to travel to come to Fleet? Why do you think they picked Fleet, or San Diego? Is there anything like this in their home country? Write about your ideas.
c. What makes San Diego so popular for tourists? Do a little research about the area, write a short essay about San Diego and why it is such an interesting city.

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

Teaching or learning notes:

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# Fun Facts

- The Fleet Science Center has 12 permanent exhibitions on display for you to choose from (everything from space facts to awesome facts about what's inside your body), as well as several sponsored exhibits that visit the science center regularly.

- Students over 15 years old can apply for an internship at the Science Center. No previous background in science is required! The Fleet Science Staff trains its interns on site!

- The Fleet Science Center offers Winter, Spring, and Summer science camps.

- Electricity travels at the speed of light - more than 186,000 miles per second!

- A bolt of lightning can measure up to three million (3,000,000) volts, and it lasts less than one second!

- Electricity can be made from wind, water, the sun and even animal poop.

- Electricity always tries to find the easiest path to the ground.

- Nerve impulses to and from the brain travel as fast as 170 miles per hour.

- Humans shed and regrow outer skin cells about every 27 days.

- Three hundred million cells die in the human body every minute. While that sounds like a lot, it's really just a small fraction of the cells that are in the human body. Estimates have placed the total number of cells in the body at 10-50 trillion.

- Every tongue print is unique. If you're planning on committing a crime, don't think you'll get away with leaving a tongue print behind. Each tongue is different and yours could be unique enough to finger you as the culprit.

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# Fleet Science Center

1. Draw a picture of your favorite exhibit.

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

3. What is one thing you learned about cells?

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

5. Describe or draw one exhibit you saw about electricity.

6. Explain the science behind one of your favorite exhibits.

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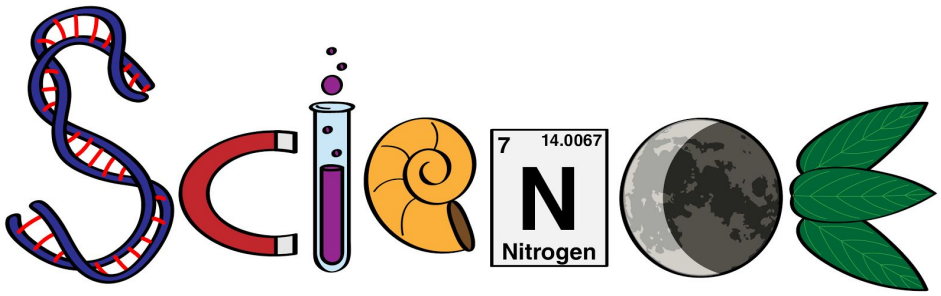
BONUS:

Explain the importance of conservation in relation to San Diego's water. Why is it important that we monitor and take care of our water source? What is currently being done to secure the health of our water system?

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