

Teacher: Sayan Chakraborti

Student:

**Time Commitment:**

Please spend about an hour on this assignment. Enjoy the exploration of the scientific method and the remarkable world of physics pioneers.

**Task 1: Scientific Method**

In our first class, we learned about the scientific method, a process scientists use to explore the world around them. Let's practice using the scientific method.

**Step 1: Ask a Question**

Think of a question about something you're curious about. It could be about plants, animals, or anything else you wonder about. Write down your question.

**Step 2: Make a Hypothesis**

Next, make a guess about the answer to your question. This is called a hypothesis. Remember, it's just a guess based on what you think might happen.

**Step 3: Test Your Hypothesis**

Now, come up with a simple experiment or observation to test your hypothesis. What can you do to find out if your guess is correct? Write down your plan.

**Step 4: Analyze Your Data**

After you complete your experiment or observation, record what you observed. Use words, drawings, or even a chart to organize your data.

**Step 5: Draw a Conclusion**

Based on your data, decide if your hypothesis was right or wrong. What did you learn from your experiment?

**Step 6: Share Your Results**

Finally, share what you discovered with your family or friends. Explain your question, hypothesis, and what you found out.

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## **Task 2: Pioneers of Physics**

Physics is a fascinating field with many pioneers who have made groundbreaking discoveries. Choose one famous physicist from the list below to research and report about their work and contributions to the world of physics.

Choose one from below or identify a different one using Google / Wikipedia:

**Isaac Newton:** Famous for his laws of motion and universal gravitation, which laid the foundation for modern physics.

**Niels Bohr:** Known for his work on atomic structure and quantum theory.

**Marie Curie:** Known for her groundbreaking research on radioactivity and her Nobel Prizes in both Physics and Chemistry.

**Albert Einstein:** Famous for his theory of relativity and contributions to the understanding of the photoelectric effect.

**Jocelyn Bell Burnell:** Renowned for her discovery of pulsars, which revolutionized our understanding of celestial objects.

### **Report:**

Write a brief report about the physicist you chose, including the following:

Their background and early life.

Their major contributions to physics.

How their work has impacted our understanding of the world.

### **Presentation (Optional):**

If you'd like, you can prepare a short presentation to share your findings with the class in our next session. Feel free to bring any visual aids (like a picture or a graph), but you don't have to.