### **Thomas Jefferson's Writing Desk**

Thomas Jefferson was the third president of America. Before that, he helped America become a country. He helped write some very important documents, including the Declaration of Independence!

When Thomas Jefferson wrote in different places, he brought a <u>special</u> writing desk with him. He went to many cities in the America colonies, so he traveled a lot! He worked on writing in cities like Charlottesville, Richmond, Philadelphia, and even New York. His writing desk traveled with him, too.

Without his writing desk, Thomas

Jefferson would have had a harder
time doing his important work. By
helping Jefferson write, this desk that tilted up.
helped America become a country!



Thomas Jefferson's writing desk was made of wood. It had a drawer and a lid that tilted up.

1. Name 2 cities where Thomas Jefferson wrote.

1	
and	
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- 2. Why did Thomas Jefferson need a writing desk like this? traveled
  - a. He traveled a lot and took it with him.
  - b. He could only write when he was outside.
  - c. People did not want to read the papers he wrote.
  - d. He did not have a home before America was a country.
- **3.** Which word is the best antonym for "special"?
  - a. cool

b. expensive

c. normal

- d. speedy
- 4. What could make a good writing desk for you? There is no wrong answer!
  - a. drawers

b. handles

c. keyboard

d. tilting lid

### **Design Challenge: Brainstorm**

Thomas Jefferson's writing desk was a helpful tool. He traveled all over the American colonies with it while writing documents like the Declaration of Independence. Now, you will design **your** travel writing desk!



To start this design challenge, you will do the first 2 steps of the engineering process. First, ask questions to define the problem. Then, imagine solutions!

1. Where would you need a writing desl	K'
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- 2. What other tools would you use with a writing desk?
- 3. What makes it difficult to write while you're traveling?

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Now, use those ideas to imagine possible solutions:

- **4.** How can you bring your desk with you?
- \_\_\_\_\_
- **5.** How can you use other tools with your desk?
- \_\_\_\_\_
- **6.** What will make it easier to write while you're traveling?

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## Design Challenge: Make a Plan

Engineers test ideas, see what works, then make better versions. Failure is part of the process—in fact, we often learn more from failures than successes! Before testing, engineers build prototypes. A **prototype** is a first version of the solution. It's like a first draft in writing. We know it can be improved, but it's a great start.

Today, draw a prototype of your new travel writing desk. Look at the ideas you brainstormed on page 31 to design your desk. Then, describe the most important features of your desk.

Draw your prototype here.		
		100 11 1
What are the <b>3</b> most impo	ortant features of your des	k? Describe them here.

# **Design Challenge: Make it Better!**

You designed a prototype of your travel writing desk. Now, it's time for a very important step in the engineering process: make it better!

<b>1.</b> What parts of your prototype writing desk should stay the same?		
2. What could be improved to make your prototype better?		
Now, draw and label your new desk. Describe any changes from the first prototype.		

## **Design Challenge: Share Your Idea**

There is one last step in the engineering process: **communicate**. After designing and improving a solution, engineers share what they learned.

Describe your prototyping journey and explain the benefits of your final design. Write in complete sentences to communicate your ideas clearly.

1.	What challenges will your new desk solve?
2.	What was your very first prototype like?
3.	How did you change your prototype?
4.	Now, convince others! Why should people use your writing desk?