



NAME: _____ DATE: _____ CLASS: _____

Form Your Design Question

Sample Answers

Directions

It's important to make sure that you and your teammates share a common understanding of what it is you are trying to achieve with your design. Use this worksheet to help you define your challenge and generate a design question that you can take forward into the Explore step of the design process.

1. **Problem Statement:** What is the specific problem or opportunity your team wants to address and how can solving this specific problem help to solve the bigger problem that is the theme of the challenge?

Climate change is a big problem that our generation needs to solve. One of the important things we need to do to stop climate change is to stop putting so much CO₂ into the air. Cars and other fossil-fuel-powered vehicles release CO₂. On the other hand, biking does not. And biking is a great, healthy way for people to get around when they don't have to travel far. Our team would like to get more people to ride bikes to work and school in our city. We learned from our research that one reason people at our school don't bike is because they are scared to ride on the fast busy road the school is on. Another reason is that it rains a lot in the spring and they don't like getting wet. So the specific problem we would like to solve is to make biking safer, especially in wet conditions.

2. **What key impacts should your design have?** List the impact(s) you want to have. (Hint: This is not what you want to make, but what your design will do.)

Encourage more people to bike; make biking safer; keep bikers dry and comfortable; make cars more aware of and careful toward bikes.



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Form Your Design Question, continued

3. **What key context should your design address?** Describe some of the contextual factors that are important to consider in your design, including whom it serves, where it needs to work, and other criteria or constraints. Incorporate things you learned from your research or talking to stakeholders.

People going to work and school

Our city

Rainy season

Busy road

Local traffic laws

4. **Design question:** Using the information above, phrase your challenge as a question.

Note: Your question should give a sense for the context in which you are designing as well as the impact you want to have and what/whom it benefits. If it doesn't, it may be too broad. Your question should also be somewhat open-ended to ensure you haven't jumped to conclusions about what you are designing. If your question is very specific, it may be too narrow. Try a few variations. Then circle the one that you think is not too broad or too narrow, but just right for your design challenge.

How might we motivate more people to ride their bikes?

How might we get drivers to be more aware of and careful toward cyclists?

How might we make biking safer on busy, wet roads?
