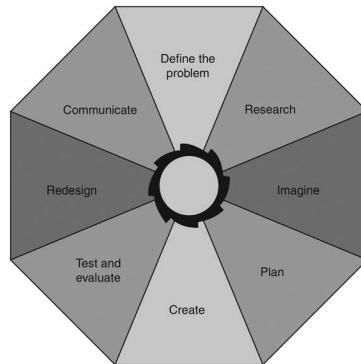




Design Tool 14.4: Sample EDP Assessment



Directions for students: Read each scenario below and answer the questions.

- 1 A team of mechanical engineers is working on designing a more energy-efficient engine for a large machine. They have just created their first engine prototype. What do you expect them to do next?
What step in the engineering design process is this?
- 2 You and your team members plan to design a lunch bag that will keep gelatin and other refrigerated items cold until lunchtime. What do you need to do next?
What step of the engineering design process is this?
- 3 Your team is designing a prototype of a house that will withstand flooding. You have brainstormed a list of ideas for how to construct this prototype. What do you need to do next?
What step of the engineering design process is this?
- 4 You convinced a couple of friends to work with you to try something you read about. You want to build a bridge from a single sheet of paper that will support the weight of 100 pennies. You and your friends build the bridge and test it. It crashes when you get to 85 pennies. What do you do next?
What step of the engineering design process is this?
- 5 Explain how a process like this might be used to solve other problems you face.
- 6 Do you think this process might be useful to people in fields other than engineering? Why or why not?