

WORKING WITH KIDS



While kids are doing the challenges, take the opportunity to talk with them about engineering. Tell them your favorite thing about being an engineer. Is it working with people? Is it seeing your ideas and creations come to life? If you share this with kids, you'll give them a whole new perspective on engineering.

Make the most of your *Design Squad* experience.

Try every challenge yourself before doing it with kids. This will help you respond to kids' questions and anticipate where they might need help.

Be friendly and patient. People of all ages may feel shy about joining in the challenge. Smile and encourage them to take part.

Let kids explore freely as they investigate. They will come up with lots of interesting solutions and learn from their mistakes.

Enlist the help of the adult who came with the children. Ask them to read instructions and help younger kids with cutting, taping, and folding.

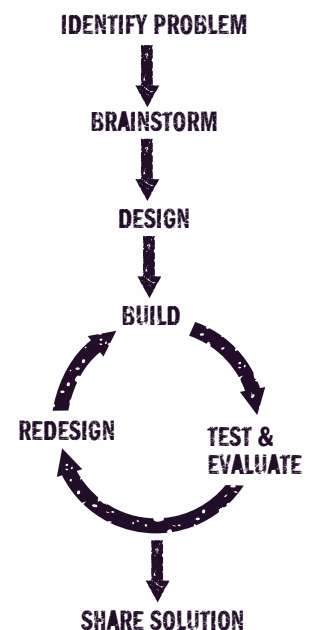
Adapt instructions to fit your audience. Younger children may need to have you show them how to do the challenge step-by-step.

Talk to the kids about what you do, what projects you are working on, and the people you work with—all in kid-friendly language. Rather than talking about the process of becoming an engineer, focus on the rewards of being an engineer. Ask kids what they like to do and see if you can link their career interests to engineering.

Point out to kids which part of the design process they are doing as they progress through the engineering challenges.

Ask kids questions to guide them as they are working (see chart below for examples).

THE DESIGN PROCESS



ASK QUESTIONS TO GUIDE KIDS

To help a child stay focused on the activity, ask:

"What do you need to do now?"
"How does your idea work?"

To help a child answer his/her own question, ask:

"That's an interesting question, how can we find out?"
"Why do you think this happened?"

To help a child problem-solve or try another approach, ask

"Is there another way to look at this?"
"Why do you think this is happening?"

To help a child make connections to the real world, ask:

"What does this remind you of?"
"What are other examples where this happens?"

To help a child improve his/her design, ask:

"Could you change something to make it work better?"
"What else would you like to try?"
"Do you have any questions?"

(Adapted from Harlen, Wynne, (ed.), *Taking the Plunge: How to Teach Primary Science More Effectively*. Westport, CT: Greenwood Publishing Group, 1985. Also, from "Putting Girls at the Center in Math, Science and Technology." © 2003 Girl Scouts of the USA. Used with permission.)



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