



Components of a GEMS lesson

- **Chat/decompress**—every child needs a few minutes to talk about their day with each other. This is a good time for snack.
- **Introduction to the day's activity**—we usually keep these a surprise until the start of the meeting.
 - Always start off with questions—relate the activity to their lives, to something they have wondered about, to a career
 - Use the vocabulary appropriate to the activity—label it as “Chemistry” or “Engineering”—Tell them that today, they are going to be “neuroscientists.”
 - Show a video of a woman doing this kind of work if you can. If not directly related to the activity, save the career video till the end.
 - Write the vocabulary on a board. Use it often. Don't assume the girls know any of these words.
- **Lay out the purpose**—What are they going to discover? Make every lesson a challenge. Make predictions.
- **Demonstrate carefully**—You do not want to have failure. Perhaps the girls will have to redesign to succeed, or rewire, or rebuild, but make sure they understand the task before you begin.
- **Talk about safety**—part of the GEMS model is doing things that are hard (We say “challenging” or “advanced”) and you need to let them know that most school classes don't let kids do these things. Challenge them to be safe and use materials appropriately.
- **Divide into teams/small groups**--Change these each week. Make it clear at the beginning that groups/tables are always going to be changed. The older the girls get, the more they want to be with their friends. You need to balance this with the idea that GEMS is about making new friends and learning new things.

- **Do the hands-on activity**--Let them explore and figure things out. Stop for discussion if you have to—a safety issue or an unexpected discovery, but try not to interrupt. Let them do the work but circulate constantly. Use your comments to encourage a growth mindset. This is not the time to catch up on email. Watch the time so that you have plenty of time to clean up and reflect.
- **Clean up**--This is part of the activity, and you can talk about respecting the equipment and the school drains.
- **Come together**--Save plenty of time to reflect on what they did, what happened, what worked and what didn't. Make sure that every girl gets a chance to speak, and call on those teams who are quiet. One of the hidden goals of GEMS is getting girls to speak up and be confident in their own voices. Use the reflection cards.
- **Talk about careers**-- Make sure they leave knowing what kinds of jobs use these skills. Use a video now if you didn't before. Review the take-home sheet and pump it up for next week.

Summary:

Components:

- Vocabulary
- Careers
- Discussion before and after
- Reflection
- Communication, especially the girls'
- Encouraging growth mindset