



A VERY SHORT CHECKLIST TO IDENTIFY QUALITY STEM ACTIVITIES

A. STAFF: GUIDE ON THE SIDE, NOT SAGE ON THE STAGE

- have planned the activity; they may refer to notes but are familiar with the steps and instructions
- have prepared and organized enough materials for the group
- check to make sure youth understand the instructions, and rephrase them if not
- ensure that all youth are involved in the activity
- remain engaged and available during the activity
- ask open-ended questions to help youth process the activity
- feel comfortable not having all the answers; do not give out incorrect information, but say, "I don't know...how can we find out together?"
- give everyone the opportunity to share out
- include reflection time

B. YOUTH: OWNERSHIP AND BELONGING

- talk is focused on the activity/science; the room may be noisy, but discussion should be mostly about the problem at hand
- movement is centered on the problem at hand; this may look chaotic, but the action should be about accomplishing the task they were given
- want to talk about what they've done, their findings, and what they think
- have ideas for extensions and further questions they want to explore

C. ACTIVITY: HANDS-ON, MINDS-ON

- engages youth in one or more science practices:
 - observing
 - asking questions/defining problems
 - developing and using models
 - planning and investigating
 - analyzing and interpreting data
 - constructing explanations/designing solutions
 - obtaining, evaluating, & communicating information
- includes opportunities for/connections to:
 - reflection
 - literacy
 - careers & role models
 - families