

Professional Development Situation: Meeting

Skill Focus: Preparing STEM Learning Opportunities

Time Required: 30 minutes

HOW DO I KNOW IF IT'S A GOOD STEM ACTIVITY?

Participants will evaluate *Wonderful Junk* in order to prepare high-quality STEM learning opportunities.

Agenda

Evaluating a Learning Opportunity—20 minutes

- [Building with Wonderful Junk](#)
- [STEM Activity Quality Checklist](#)

Discussion—10 minutes

Materials

- One copy of [STEM Activity Quality Checklist](#) for each participant
- One copy of [Building with Wonderful Junk Activity](#) (or other activity) for each participant
- Chart paper and markers

Before the Session

- **Read this meeting guide** to become familiar with the content and allow time to personalize the activities to best suit your presentation style.
 - *Italics indicate text that can be read aloud or emailed to the participant.*
- Send reminder email about the meeting. Determine if any participants require accommodations (sight; hearing; etc.).
 - *The next professional development opportunity to enhance our STEM skills will be on DATE at TIME at LOCATION. Our focus for this session will be “Preparing STEM Learning Opportunities”. Let me know if you require any accommodations to*

participate in the training. I am happy to answer any questions you have and look forward to seeing you at the workshop. I can be reached at CONTACT INFO.

- Make copies of handouts needed for the session. Decide if you will use the [Building with Wonderful Junk Activity](#) or substitute another activity from your program.

Session Outline

Evaluating a Learning Opportunity (20 min)

- **Welcome participants** to the meeting. Explain the purpose of the meeting: to practice evaluating and adapting a STEM activity and prepare a high-quality learning experience.
- **Brainstorm together** about why this skill is important. Ask, “Why do you want good quality STEM activities in your program?” *Record ideas on chart paper so everyone can see them.*
- Pass out the [Building with Wonderful Junk Activity](#) from the Educational Equity Center at AED to participants (*you may choose to substitute a different activity*). Read through it together with special emphasis on the before, during, and after activity sections.
- Pass out the [STEM Activity Quality Checklist](#) list.
 - *For each of these criteria, we will write whether we think this activity hits the mark or needs to be revised. No lesson meets every criteria, but you want it to be really strong in 2-3 of the criteria.*
- Give pairs time to work through the criteria list (7 minutes or so).
- With their partner, have participants to reflect on the things this lesson does well (7 minutes or so).
 - *What does this lesson do well?*
 - Possible responses: It contains a wide variety of inclusive strategies for youth with disabilities, it identifies age-appropriate instructional strategies; it lists the engineering principles of building materials .
 - *What could be changed about the lesson?*
 - Possible responses: It doesn’t have a hook or reflection. It doesn’t connect to a career.
 - *What kinds of changes would you make in the activity?*
 - Possible responses: Add a hook to engage learners at the beginning of the activity. Include time for reflection at the end of the activity. Invite a visitor to make a career connection.

Discussion (10 min)

- If time allows, have each set of partners share one idea from their discussion – a strength or weakness they identified in the activity, or an adaptation they would make to improve the activity.
- As a group, reflect on the lesson review and ideas for adapting the activity. Ask participants:
 - *How often are you able to evaluate the activities you use in your program? Could you change this?*
 - *How well do you think the activities you use would rate on this checklist?*
 - *What support do you need to make changes?*

After the Session

- Email the participants:
 - *Thank you for your participation in the recent Click2Science training on “Preparing STEM Learning Opportunities”. I hope you found it useful and applicable to your practice. Consider sharing your thoughts with a co-worker, supervisor, or friend. Please let me know if you have any questions. You can reach me at CONTACT INFO.*

Want to Earn Credit? Click2Science has teamed up with Better Kid Care to provide continuing education units. Check it out at: <http://www.click2sciencepd.org/web-lessons/about>

STEM Activity Quality Checklist

Rate the activity according to the following criteria.

4: Exemplary for this criterion

3: Suitable

2: Needs some adaptations

1: Needs major adaptation before teaching

Rating	To what extent does the activity:
	Relate to a STEM Career? Describe:
	Connect to the everyday lives of youth? Describe:
	Contain a strong, interesting hook? Describe:
	Contain time for reflection? Describe:
	Allow for group collaboration? Describe:
	Have informal checkpoints to make sure youth are “getting it”? Describe:
	Connect to STEM principles or “big ideas” that youth engage with? Describe:
	Get youth moving and actively involved with STEM? Describe:
	Include youth with disabilities? Describe: