Professional Development Situation: Meeting

Skill Focus: Preparing STEM Learning Opportunities

Time Required: 20 minutes

IDENTIFYING A STEM LEARNING GOAL

Participants will evaluate common STEM activities in order to prepare high-quality STEM learning opportunities.

Agenda

Planning a Learning Opportunity—20 minutes

- STEM Planning Template
- Common Out-of-School STEM Activities

Materials

- Computer with internet connection
- Projector and speakers
- One copy of STEM Planning Template for each participant
- One copy of Common Out-of-School STEM Activities for each participant

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. Read all informational materials.
    - *Italics indicate text that can be read aloud or emailed to participants.*
- 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.

- Gather all materials needed for the session.
- Develop a list of possible questions participants might have during the meeting. Create potential responses to be explored through informal conversation. Review any key terms or ideas that may be unclear.
- On the day of the session, test the audio and video equipment.

Session Outline

Planning a Learning Opportunity (20 min)

- Introduce the task for the day.
    - *Today we will be looking at popular STEM activities and thinking of the learning goals that are connected to them.*
- Pass out the STEM Planning Template to participants. Read through it together with special emphasis on the before, during, and after activity sections. Then call attention to the learning objective.
    - *Every lesson is unified by its objective, or the goal for youth learning. We often use a "SWBAT" to write a lesson objective, or a "Students will be able to" phrase to start out the objective. This is the most important part of planning a lesson; we want all learning activities to be tightly focused around what youth will learn.*
- Pass out the Common Out-of-School STEM Activities list.
    - *For each of these activities, we are going to write a possible learning objective for our program. These objectives should be linked to a STEM concept or practice, but you can have other learning objectives that emphasize teamwork, social skills, and other actions you might prioritize in your classroom.*

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 Planning Template

Date:	# of Youth:
Activity Name:	Age of Youth:
Learning Outcomes	
STEM Practices After this activity, youth will know <u>how to</u>:	*STEM Concepts* After this activity, youth will know <u>that</u>:

Lesson Design	
Introduction (Hook) _____ minutes	
	Materials needed for this step:
Activity _____ minutes	
	Materials:
Reflection or Assessment _____ minutes	
	Materials:

Common Out-Of-School STEM Activities

	Youth will be able to…	Related STEM Principle
Egg drop Build a contraption to protect an egg from cracking		
Building with Wonderful Junk Build a strong tower out of recyclables		
Jam Jar Exploration Investigate the types of soil in a jam jar.		
Paper Airplane Design Build the farthest-flying airplane		
Soda-Straw Rockets Design and launch a paper rocket off a plastic straw		
Identifying Local Plants Investigate native species in the area around your program		
Build a Parachute Try to get the most hang time		
Glurch & Oobleck Note the properties of gooey substances.		