

Professional Development: Meeting

Skill Focus: Making Connections to STEM Careers

Time Required: 30 minutes

CONNECTING SKILLS TO CAREERS

Participants will analyze the Design Squad Paper Tables activity in order to help youth connect the skills they are using to STEM careers.

Agenda

Introduction – 2 minutes

See the Skill in Action – 10 minutes

- [Connecting Real-World Skills to Career Roles](#)

Find the Skills – 8 minutes

Make the Connection – 5 minutes

Conclusion – 5 minutes

Materials & Supplies

- Computer with Internet connection
- Access to Zoom, Google Hangout, or another type of online, meeting software
- Design Squad Paper Tables Activity available at:
http://click2sciencepd.org/sites/default/files/DS_Act_Guide_PaperTable_0.pdf?pdf=DS_Act_Guide_PaperTable.pdf
 - Make enough copies of this activity for each person if holding this meeting in person.
- Flipchart paper and markers (if holding this meeting in person)

Before the Session

- **Read this training 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 to participants.*
- Send reminder email about the training (below). Determine if any participants require accommodations (viewing video; hearing; etc.).
 - *The next professional development opportunity to enhance our STEM skills will be on DATE at TIME at (link to online meeting). Our focus for this session will be “Making Connections to STEM Careers.” Read through the [Design Squad Paper Tables Activity](#) and have a copy available for the session. I am happy to answer any questions you have and look forward to seeing you at the session. I can be reached at CONTACT INFO.*
- Set up meeting using online meeting software (Zoom, Google Hangout, Adobe Connect, Skype, GoToMeeting), if holding it virtually.
- Practice using the online meeting software before this session.
- Download an MP4 version of the Click2Science video if showing it from the website will be difficult.

Session Outline

Introduction (2 min)

- Welcome participants to the meeting. If holding this virtually, you may want to provide instructions for troubleshooting sound issues or using the software on an opening slide in the meeting room.
- Introduce yourself and the focus of the session: making connections to STEM careers.
 - *The goal of this session is to identify the skills youth use as part of different STEM activities and connect those skills to careers. We are going to use a simple engineering design activity to talk about the different skills youth use and how those can be connected back to STEM learning experiences. You should have the Design Squad Paper Tables activity available to you during this session.*

See the Skill in Action (10 min)

- *We are going to watch a video from Click2SciencePD that showcases a 4-H educator making connections to the real-world skills youth use in various careers. We’ll watch a video to give us a context for the activity and then watch a video that focuses on the way the facilitator makes these connections.*
- Play the overview video in Step 1 for the video-based learning module [Connecting Real-World Skills to Career Roles](#).
- Ask participants to think about these questions as you watch the skill video:



- *How does Dagen connect the skills youth use with their career roles?*
- *What questions does he ask youth to get them to think about the skills they used as part of their career role?*
- Play the skill video under Step 3.
- Ask participants the reflection questions and facilitate a discussion (using the chat function if holding this meeting virtually):
 - *What are other ways you could connect youth to careers as part of this activity?*
 - *What are some other questions you could ask youth to think about the skills they use as part of STEM careers?*
 - *What other ways can you connect real-world skills to careers, outside of conversations?*

Find the Skills (8 min)

- *Hopefully you all had time to review the Design Squad Paper Tables activity and can brainstorm the real-world skills youth use during this activity.*
- Facilitate a brainstorming session and ask participants to share the real-world skills that youth develop through the activity. Use flipchart paper to record the skills participants' share, if facilitating this meeting in-person.
- If holding this meeting virtually, use the chat tool so that it is recorded, or share your screen and record the skills on a Google or Word document. Some examples to get the group started:
 - Design process skills – using the engineering design process
 - Build – create a paper table to test
 - Test – see if the design worked
 - Evaluate – review what worked and what did not work with the design.
 - Creativity – coming up with a strong table design using newspapers
 - Teamwork (if working in a group) – working together with others to create a strong table. Listening to others ideas.
 - Communication – sharing initial design, evaluation results, and redesign
 - Resiliency – if the design failed, it is not a mistake – it is an opportunity!
 - Decision Making – making design and material decisions
 - Problem Solving – the engineering design process always begins with a problem to solve
 - Critical Thinking – why didn't the design work? What changes need to be implemented in the redesign for the design to work?



- Ask participants to share their ideas for connecting skills to careers.
 - *The skills that you've brainstormed are skills that youth will need when they enter the workforce. How can we help them make the connection between the skills they are using and STEM careers?*
 - If no one mentions it, share that you have to be explicit about how careers connect to their interests and skills.

Make the Connection (5 min)

- Using the Design Squad Paper Tables Activity as an example, ask participants to brainstorm how they could help youth make connections between the skills they just brainstormed and potential careers. Use flipchart paper to document their ideas, if facilitating this session in-person.
- Use the chat tool so that it is recorded, or share your screen and record the skills on a Google or Word document. Save the chat or document to share with participants after the session. For example: graphic designers use design process skills as part of their creative process.
 - *A good question to ask youth to get this conversation started is: "You used your decision making skills to determine which design to test. What other careers will require you to be able to make decisions?" Have some careers in mind if youth get stuck, but it is powerful for them to make the connection themselves.*

Conclusion (5 min)

- Debrief the experiences from the session:
 - *How can you identify the skills that youth develop in an activity?*
 - *Share one strategy that you plan to implement immediately.*
 - *What additional resources would help you feel more comfortable connecting skills and careers with youth?*
 - Additional resources to share:
 - 4-H Life Skills Model: <http://edis.ifas.ufl.edu/4h242>
 - 21st Century Skills: http://www.p21.org/storage/documents/docs/P21_Framework_Definitions_New_Logo_2015.pdf

After the Session



- Type up the lists of skills and ways to connect to STEM careers that the group brainstormed or use a scanning app to convert a photo of the notes to a PDF to share with participants.
- Email the participants:
Thank you for your participation in the recent Click2Science training. I hope you found it useful and applicable to your practice. I am attaching the list of skills and career connections we brainstormed to use if you deliver the Design Squad Paper Tables Activity available at:
http://click2sciencepd.org/sites/default/files/DS_Act_Guide_PaperTable_0.pdf?pdf=DS_Act_Guide_PaperTable.pdf. Additionally, you can reach me at _____.

