



Let's Do Chemistry Train-the-Trainer Workshop

Tips for Facilitating Hands-on Chemistry Activities

INVITE PARTICIPATION

Greet participants

Say “hello,” make eye contact, and smile. Looking like you’re available and friendly will invite learners to interact with you. To start things off, you can ask a question that sparks participants’ interest or find out what they already know about chemistry.

Introduce the activity and model what to do

To encourage participation, let learners know what they will be doing in the activity. Introduce tools or materials and demonstrate safe procedures. You can quickly show learners what to do and then suggest that they try the activity themselves. If possible, meet them at eye level when explaining or modeling.

Engage the whole group

Participants will learn best if their entire social group takes part. To engage those who are hanging back, you can ask them a question or suggest something they can do.

Have fun!

Convey a positive attitude about learning chemistry together.

SUPPORT EXPLORATION

Let participants do the activity

As much as possible, let participants do the hands-on parts of the activity and let them discover what happens. You can ask questions, offer hints, and help out as needed.

Provide simple instructions

Give participants a clear idea of what they are trying to do, with simple instructions that allow them to ask questions or try something different.

Be flexible and attentive

Pay attention to participants’ interest, age, and abilities, and modify your facilitation style to create a safe, fulfilling experience for them. Keep in mind that children do not have the same prior experience, motor skills, or vocabulary as adults.

Ask guiding questions

Ask questions to discover what participants know or are interested in. Encourage participants to try again and experiment by asking them about their observations and predictions. You can also ask questions to help them notice something or try something out. Avoid asking questions that have right or wrong answers.

Be a good listener

Be interested in what participants tell you, and let their curiosity and responses move the interaction forward.

Use simple, clear language

Focus on one main idea at a time—don't feel that you need to tell participants everything at once! Keep the information basic for starters, and be willing to expand on an idea for interested learners.

Offer positive feedback

Observe what participants are doing, and provide positive reinforcement.

Support learners through challenges

Help participants figure out what to try next, rather than telling them what to do. When learners have trouble articulating their thoughts, help them think it through themselves.

DEEPEN UNDERSTANDING**Ask discussion questions**

As learners progress through the activity, you can ask questions that encourage them to draw from their own experience, make observations, and test their own answers. Encourage participants to explain why or how something is happening, based on what they have learned during the activity.

Make connections

Help participants observe and think about the activity. Encourage them to make connections to knowledge or experiences outside of the activity. This could be based on personal experiences in everyday life or societal issues.

Share what you know

Contribute ideas and information from your own experience, maintaining a focus on helping participants develop positive attitudes toward learning chemistry.

Acknowledge what you don't know

If you aren't sure about something, it's ok to say, "I don't know. That's a great question!" Work with them to find the answer, or suggest looking online for more information.

Wrap up

Follow participants' cues and recognize when they're ready to move on. Thank them for participating and suggest other activities they might enjoy.