

Professional Development Situation: Training

Skill Focus: Facilitating Inclusive Learning Experiences

Time Required: 60 minutes

WHAT WE DO AND SAY MATTERS

Participants will design a Tumblewing Flyer to learn to facilitate inclusive STEM learning activities.

Agenda

Welcome & Introduction—10 minutes

- [Creating Safe Spaces Self-Reflection](#)

Hands-On Learning—40 minutes

- [Tumblewing Flyer](#)

Setting Goals—10 minutes

Materials

- Computer with Internet connection
- LCD projector & speakers
- Flip chart paper & markers
- Pens for participants
- Copies for each participant of:
 - [Creating Safe Spaces Self-Reflection](#)
 - [What We Do and Say](#)
 - [Tumblewing Flyer](#) instructions
- Tumblewing Flyer Materials for each pair of participants
 - 2 phone book pages
 - A scissors
 - A piece of cardboard

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. Watch all videos and read informational materials.
 - *Italics indicate text that can be read aloud to participants.*
- Send reminder email about the training. 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 LOCATION. Our focus for this session will be “Creating Inclusive Learning Environments” 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 training. Attend in particular to the items needed for each of the stations.
- Develop a list of possible questions participants might have during the training. Create potential responses to be explored through informal conversation. Review any key terms or ideas that may be unclear.

Training Outline

Welcome & Introduction (10 min)

- Greet participants as they arrive. Make sure everyone feels welcome and comfortable in the learning environment.
- Introduce yourself and the focus of the session: facilitating inclusive STEM experiences.
- Ensure participants are aware of the locations of restrooms facilities, refreshments, etc.
- Pass out the [Creating Safe Spaces Self-Reflection](#). Give participants time to complete it and write down any questions they have for you about it.
- Give time for a pair-share.
 - *With a partner, talk about the things you feel most comfortable doing.*
 - *What things do you feel most uncomfortable doing?*
 - *We do self-reflections not to make us feel bad about our practice, but to encourage us to see what we’re doing well and to highlight things we haven’t worked on in a while. Today we’ll be thinking about small things we can change to help make our learning spaces more inclusive and to help all youth engage in STEM. In the next part of the session we’ll be making a “flying” aircraft called a Tumble Wing Flyer. As we work we will think about what we can do to include all*

of our youth and encourage them all to participate. We'll be using some inclusive teaching moves as we work.

- Pass out the [What We Do and Say](#) guidelines.
- Ask participants to read it.
 - *For the next activity, we're going to try to use these talk moves with each other to facilitate a warm, positive, and STEM-rich learning experience.*

Hands-on Learning (40 min)

- Hand out the [Tumblewing Flyer](#) instructions and 2 sheets of phone book paper to each participant.
- Pair participants up.
 - *We will be flying our Tumblewing flyers in a competition to see who can keep theirs in flight the longest. You can innovate as much as you want in your design, but the basic design is on the handout.*
- Optional: Show the [Ottawa Citizen's Youtube Video on Tumblewing Flyers here](#) to support the design process.
- Give participants 20 minutes to work.
- Debrief as a whole group.
 - *Were you able to use the suggestions on the "What We do and Say" handout?*
- Go around the room and have people describe their experience using the guidelines for what we say and do.

Setting Goals (10 min)

- Participants will now set three goals for making their programs more inclusive.
 - *Look at your self-reflection and think about your experience using the talk moves for what we say and do. Now you are going to write down three things you're going to try out in your setting.*
 - *Share your goals with an "accountabilibuddy" who you can talk to if things aren't going well or if you need further support.*
- Thank participants for their attendance and encourage them to get in touch with you if they have questions.

After the Session

- From notes you took on the pieces of chart paper, compile a list of strategies for organizing, recording and documenting experiments/experiences shared by the group.

- Within 2-3 weeks of the training, email to all participants. Include the list of strategies used to support documentation of STEM as a resource of ideas for participants.
 - *Thank you for your participation in the recent Click2Science training on Creating Inclusive Learning Environments. I hope you found it useful. Consider meeting with a co-worker, supervisor, or friend to share what you learned. I look forward to continuing our learning at the next session on SKILL/FOCUS on DATE at TIME at LOCATION. Please let me know if you have any questions. I can be reached 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://extension.psu.edu/youth/betterkidcare/school-agepractitioners/click2science>

Creating Safe Spaces Self-Reflection

Consider each of the statements below. Circle the number that best describes you. There are no right or wrong/good or bad responses.

1= not at all true

3=somewhat true

5= very true

- 1 2 3 4 5 I support students to use science practices in their explorations of STEM.
- 1 2 3 4 5 I encourage trial and error in STEM learning experiences.
- 1 2 3 4 5 I promote a mutually respectful, environment characterized by encouragement of new ideas and support of different perspectives.
- 1 2 3 4 5 I model giving and receiving constructive criticism.
- 1 2 3 4 5 I model how to resolve conflict.
- 1 2 3 4 5 I create an emotionally safe learning environment.
- 1 2 3 4 5 I promote teamwork and cooperation.
- 1 2 3 4 5 I design environments to be safe and allow for exploration.
- 1 2 3 4 5 I support interactions that arise from curiosity and are free of the performance demands characteristic of schools.
- 1 2 3 4 5 I model an environment where it is okay to make mistakes or be unsuccessful in their attempts.
- 1 2 3 4 5 I use a warm tone of voice and respectful language.
- 1 2 3 4 5 I am comfortable addressing bullying with my youth.
- 1 2 3 4 5 I know how to help youth work through conflicts.
- 1 2 3 4 5 I value all youths' cultures, backgrounds, and heritages.
- 1 2 3 4 5 I am aware of stereotypes and biases that might influence my facilitation.
- 1 2 3 4 5 I try to connect activities with the backgrounds of nondominant youth, including racial/ethnic minority groups and girls.
- 1 2 3 4 5 I greet youth using their names.

What We Do and Say

These strategies can help create a more inclusive learning space where everyone feels welcomed. Consider discussing these with your class or generating your own list during a class meeting.

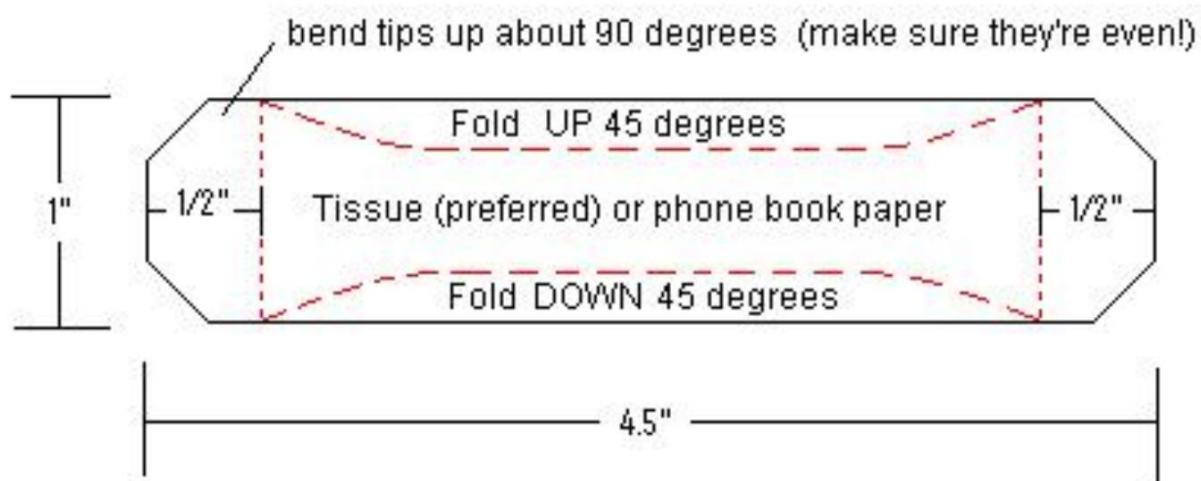
Say This	Instead of This
I really like how you...	I don't like...
I wonder what might happen if...	I think we should...
Have you thought about...	You should...
That's a great idea...	That's not a good idea...
Do you think we could try...	We're going to do _____ next
Do you have ideas about...	You do this part....
I never thought of that...	How could you think that?

- Make eye contact when you are talking or listening to others
- Show interest by listening to what others say
- While listening, think of questions you could ask to further the conversation or idea
- Validate other people's feelings and thoughts (that's a good idea; I like how ____; etc.)
- Find ways to include everyone (everyone has strengths—find ways to use each person's strengths. (For example, someone might be good at writing, so let her take notes while someone else might be good at organizing, so let him take the lead on that aspect of the project)
- Offer to help out—gathering materials, cleaning up spaces, etc.
- Remove yourself if you feel overly frustrated or tempted to say something discouraging to others (get a drink of water or walk around to re-set your thinking/emotions)
- Rather than lashing out if someone makes a social mistake (says something wrong or in a hurtful tone), calmly let them know how you feel and ask an adult for help to resolve the situation.
- Take time to think about what you are going to say to someone else—especially regarding constructive criticism.

Tumblewing Flyer

Materials (1 set per pair):

- Thin paper (phone book pages work well)
- Scissors
- Cardboard (10" x 15")



— bend or fold along dashed red lines

To fly, hold a 10" x 15" rectangular piece of cardboard by the top (long edge) in one hand. It should be angled back 15-20 degrees from vertical. Release the tumblewing overhead and bring the cardboard up behind it. The tumblewing should be spinning a couple of inches in front of the cardboard, and centered near your knuckles.

For a demonstration, see the [Ottawa Citizen's Youtube Video on Tumblewing Flyers here](#).