Thank you to Nigel and Alexa for giving me this opportunity. My name is Sheila Saia and I’m a graduate student in Biological and Environmental Engineering and a CTE fellow. Can we go around the room and please just say your name and the focus of your workshop.
Develop learning outcomes for your workshop.

Plan active learning strategies that accommodate diverse learners.

Discuss how to include ‘real world’ applications and engage youth-adult partners in your workshop.

(at 5 min from start of my part) By the end of the workshop today we will ....
(at 10 min) Let’s start with the first activity. I’d like all of you to take out a scrap of paper and...
(at 12 min) Now that you have your description pair up with one other person (or three if you have to) and....

Share with whole class if we have time

(at 14 min) Main point: My hope was that this simple activity of describing a stream has revealed to you your preferred sense and also learn about your partner’s preferred sense. In reference to learning, we will talk about this more later but it’s important that we recognize the diversity of learning preferences and design activities in our workshops that reflect that diversity.
(at 15 min) We may also want to consider other forms of diversity. Here we see last year’s attendees were from all over NYS including neighborhoods ranging from rural to the city.
We also see diversity in the age of participants.
I promise we will get talk more about diverse learners later on but I wanted to share with you some of the descriptive feedback from last year’s 4H Career Ex. The tope three strengths highlighted in the evaluations were:... and the top three suggestions were:

**Strengths**
1. Meeting new people
2. Classes and learning
3. Hands-on activities

**Suggestions**
1. More hands-on activities
2. More programs/make sure everyone can participate
3. Improve program organization
Looking at the numeric survey results from last year we see positive ratings overall for Career Ex but the question is... how can we improve the rating of specific programs (i.e. workshops like the ones you all are leading)?
I’d like to argue that there are two ways we can improve this rating. (1) Have clear LOs that we share with the participants (and also say why) and use these to formulate our activities. (2) We actively engage all learners. Today I’ve lead you thru some activities to get you thinking about these two things, specifically.
What can we do?

Have clear learning outcomes and use those to formulate activities
(Explain what we want students to learn and why)

Actively engage all learners
(Plan active learning strategies that can accommodate all types of student learners)

(at 21 min) Looking specifically at the first action item which focuses on LOs....
What: LOs explain what students will be able to know, do, or be when they finish your program.
Why: (1) help you as you formulate your activities (working backward) and can refer to them to make sure you’re on track (2) tell students what they should know and why it’s important to this class and life

When writing LO’s it helps to understand Bloom’s Taxonomy which is represented here and depicts different levels of learning starting with the most basic, knowledge, and the most complex, evaluation. For example, say we just want our students to memorize some chemical structures and name them for a test that would be an example of learning at a lower level while designing a waste water treatment plant would be a higher order (synthesis).
Writing LOs

By the end of this workshop, students will be able to ___(verb)___ (learning statement).

Example:
Students will be able to **explain** the different career paths for environmental engineers.

(See the CTE handout)
For our second activity we will get some practice critiquing some learning outcomes. Look at the LOs handout and... 

(at 27 min) Group up with someone (or three) and share what you thought with the other groups and be ready to explain it with everyone.

(at 30 min) Go over corrections with everyone.

Purposeful question at the end: Do you all see how you can include verbs that map to the different Bloom’s Taxonomies? Does anyone have any questions about writing a LO?
(at 35 min) For our next activity we will build on the previous one and you will practice writing your own LOs for your workshop. With your workshop group (or individually if you are the one from your group) take....

(at 40 min) Join up with another group and share your LO and ask them to give you feedback and switch

(at 42 min) If you would like, share a few group’s LO with all.

Main idea: Now we might have a better idea of LOs now and we should clearly explain these at the start and end of the workshop but we can also formulate LOs for each activity in the workshop and share these at the start and end of the activity. Be sure to explain why you choose the LOs too!
What can we do?

Have clear learning outcomes and use those to formulate activities
(Explain what we want students to learn and why)

Actively engage all learners
(Plan active learning strategies that can accommodate all types of student learners)

(at 45 min) What else can we do, remember I also mentioned activity engaging all learners. Let’s talk about this aspect now.
What: process where student engage in activities (reading, writing, discussions, problem solving) to promote deeper levels of learning (analysis, synthesis, evaluation) and often involves cooperative learning (learning with others)

Why: students play an active role in learning (learning is responsibility of the learners) but they can also find their own ways to connect with what they are learning, working with others can also help them access deeper levels of learning

When doing so we should consider how this activity might engage different learners like the ones in this figure. I don’t have enough time to talk about all these today but I did give you a handout on them (on back side of the LO handout) if you want to know more!
There are many different active learning strategies you can use and it will be tough to go over all of them but I hope you’ll learn about a few that you might want to use. I’ll give you cards and want you to ask around for the pair of it (either the name or the description) in the next 5 min.

Purposeful questions: Did anyone find an active strategy that they thought they could use in their workshop? Please share.
(at 60 min) We have one LO that we wrote and using those and the different active learning strategies take then next 5 min to...

(at 1 hr 5 min) With your group or another person share....

(at 1 hr 10 min) If you wish, share a few activities with the group.
Youth/Adult Partnerships

Role playing facilitated by Jamila Simon.

(at 1 hr 15 min)
Activity 6

Individually, take 2 min to think about how you could incorporate ‘real-world’ experiences and youth/adult partnerships into your workshop.

Share this with 2-3 people in the next 2 min.

If you feel comfortable, share your idea(s) with the whole group.

(at 1 hr 35 min)
In this workshop, we:

✓ **Developed** learning outcomes for your workshop.
✓ **Planned** active learning strategies that accommodate multiple learning preferences
✓ **Discussed** how to include ‘real world’ applications and engage youth-adult partners in their workshop

(at 1 hr 40 min) Recap
(at 1 hr 40 min) Please fill out evaluations for me!