

Transcript of Kids Taking Over! Peer Coaching as a STEM Strategy

Kara: Good morning everyone, and welcome to this online session, Kids Taking Over! Peer Coaching as a STEM Strategy. This session is sponsored by the Pennsylvania Department of Education in conjunction with the Center for Schools and Communities.

I'm Kara Achwright, the youth development program coordinator at the Center for Schools and Communities, and I will be moderating this session with Gail Hutchinson and Maggie Goodman, who are our presenters for today.

Gail and Maggie are from the Museum of Science and Industry in Chicago, and they will lead you in creating a program infrastructure to prepare older students to be co-facilitators in STEM learning for your younger participants. At the end of the webinar you will have planning strategies, resources, and lesson plans with hands on and budget minded STEM activities, you'll have tools you need including unique ways of differentiating instruction for different learning styles, and to build a strong peer coaching program involving students of all ages.

At this point, I would like to introduce our presenters, Gail Hutchinson serves as education coordinator with the Museum of Science and Industry, Chicago Public Schools initiative. She previously worked as a program manager for the city of Evanston after school program, a media literacy specialist for after school matters, and has designed, produced, and marketed training pieces for Chicago Public Schools, Siemens, McGraw Hill, Coca Cola, and the Illinois Department of Commerce through her privately owned digital marketing company, Joy Productions.

Gail received her Bachelors degree in communications at Northern Illinois University and a Masters of management degree in higher education administration from Robert Morris University.

Maggie Goodman works as an education coordinator with the Community Initiatives office at the Museum of Science and Industry, Chicago. Having previously taught through Kentucky's transition to teaching program, which places educators in high need school districts, Maggie has extensive training in diversified instruction, and resource management.

Prior to working in the classroom, Maggie was a youth development officer for the University of Kentucky's storage program, and an affiliate with the Gray River Region 21st Century after school program site. She has a BA in English Creative Writing from Rhodes College, and is a former member of Second City's House Improv and Skit Company.

At this point, I'd like to turn the webinar over to Gail and Maggie.

Gail Hutchinson: So you have the opportunity to ask questions about peer coaching as it relates to communicating STEM, and I'm going to add STEAM education, which adds the art piece in there. You'll discover efficient and easy best practices for implementing peer coaching at your site or what you may call co-facilitation.

You will also have the opportunity to explore age appropriate peer coaching activities that have been utilized by the Museum of Science and Industry. You will be provided time to explore the resources and programming you currently have that would be enhanced by a peer coaching program. So we'll get to as many questions as we possibly can through this, and you're going to be hearing two voices, but we're on the same line.

So, I just want to introduce Maggie Goodman's voice.

Maggie Goodman: Hi everyone, thanks so much for joining us today. I'm Maggie Goodman, I just want to talk a little bit about the pros of peer coaching, why do we peer coach? I know a lot of you do this informally at your site, but, let's talk about some varied specifics to make this a little more purposeful.

So one, we want to foster youth development and community investment, right. When we're training the children within our communities, within our sites to be leaders, we're hoping that they're going to return to those sites and be an investment in those places that we're working.

Another reason is, obviously, we want to foster an idea of a sense of ownership and autonomy amongst our students, right. That's where they get those wings, that's where they learn to develop those leadership skills that are so vital.

Also, we want to promote a curiosity in STEM and that deeper understanding in STEM and STEAM topics. When a student has to think through the process of communicating high concept ideas to younger students, they are actually, you know, processing that information in a different way. When you teach something, there's a deeper understanding of it, a deeper meaning for yourself.

And then, finally, I think the most important thing that Gail and I will agree on this is that the power of someone having a purpose, right. I think that we've all felt that, even professionally as adults. That power's even more potent when you think about training kids to have a sense of ownership in what they're doing at a club or a site.

Gail's going to talk to you a little bit about why after schools are the perfect setting for peer coaching.

Gail Hutchinson: So research tells us that peer coaching programs, and their objectives, and quality after school programs share the following standard. They give opportunities for skill building. So, there's no assessment attached to out of school time programs. And so you have the time and the opportunity to build

certain skills where there's not the need to have assessment or sometimes the fear of having a test to take after you build those skills.

There is also the integration of family, school, and community efforts. When I was the director of one of the community sites in Evanston, we had a family night, and it gives an opportunity, when you work in our of school times programs to bring families together, maybe around food, we had potluck dinners, and you can share more in a more informal setting with your families.

There are also consistent rules and expectations in continuity and predictability in an after school setting. There's generally a schedule, they know what time they're going to get there after school, they know where they may be having snack. If there's some homework component, those things are already built into your programs, you're already doing these things.

Also, there's supported relationships that are characterized by warmth and closeness. The out of school time professional, as you all know, many times, wears several hats. Sometimes you will have parents talking to you about confidential things at your site, and you will know how to assist them.

There's also that connectedness and caring and support and responsiveness that you can give. You can directly assess families needs, and you can direct them to different resources. And a lot of that is proactive on your part because of the relationships that you've built with your families and your children.

And, also, what after school programs and out of school time programs are already doing is creating opportunities to belong and have meaningful inclusion regardless of certain demographics and abilities. Many times, you'll have siblings there, and those siblings can help. And you'll begin to see some things and know some things about your families, and make opportunities for them to easily belong.

Also, you're already fostering responsibility and giving them meaningful challenges. You make them accountable for many things that go in your programs, and all of you have different programs, but these are some things that research tells us that you're already doing, which makes peer coaching such a great fit for your site. I'm going to turn it back over to Maggie, and she's going to talk about when peer coaches are useful.

Maggie Goodman: So I know that the groundwork is already laid for students to feel comfortable to kind of spread their wings and begin working as a peer coach, but we want to talk about when they're most useful. So, obviously, I'm speaking to the choir when we talk about understaffed programs. I think anyone that's worked in after school has felt that crunch. And you probably are already doing this at your site, but use those teams when you know your program needs an extra set of hands.

That's a vitally important thing for them, but then also a lifesaver for you. Think about the idea of positive reinforcement for your participants. So if you've had a

student that you know is just there as far as leadership development, and you know that they're ready for a challenge, think about creating opportunities for them to be more engaged and excited.

This will lead to program growth, it will lead, most importantly to student growth, but more than that, younger peers will see the older students having these opportunities and they'll want to stick around, they'll want to be able to have their turn in that role.

So, again, that autonomy, that sense of ownership, will breed more investment on the part of your students. And also, your group will be more inclined to learn and foster a positive environment. When you have a stake in the community you're building, whether you're five years old or 15 years old, you're going to have a better feeling towards that community, so that's a vitally important thing when you think about where to use peer coaching in building your program.

Also, when a student needs extra support, this is something we do. Someone formally allows the time, we pair up older students with younger students, or even similarly aged peers. But when you do it with a more purposeful concept in mind, when you're thinking about actually building an actual peer coaching program, whether it's STEAM, whether it's after school math volunteers, it's very, very useful.

So try developing a peer coach to start with other peers, and help them grasp those difficult STEM concepts, right. A lot of times, I'm sure at least for myself, I have watched teenagers communicate high concept STEM theories to kids that, they did it in a way that was so succinct and simple, and I've definitely back pocketed that for when I wanted to explain it later on, because there's a commonality in their language and how they're connecting to the information.

So, when a student needs extra support, that's a great way to have another inline to help them with that. And then, It also just makes it more interesting, when you see an older student or when you see a friend communicating a STEM concept or a STEAM concept, it just makes it a little more fun, you're a little more invested when you see that this is an every day thing, right. We talk about science, we don't talk about it just in the classroom, we talk about it in just conversations we're having after school, and that's a really inspiring thing for younger students.

I'm going to turn it back over to Gail, and she can talk a little bit more ... Oh, I apologize, now, I'm going to open up a question to the group, so, we already know that you're doing a lot of things informally, so, what are some examples of informal peer coaching that have worked well for your program? We'll give you guys a little time to answer that and I'll read some of the responses aloud in case there, I'm sure there will be some real gems to share with the group.

Maggie Goodman: We do have a Levita Smith who has a question, hand raised for a question. Levita do you have a question you'd like to ask?

Okay, if you'd like to respond to our presenters question, what are some examples of informal peer coaching, please do so by putting in the question box or you can click on your unmute button and speak in like a call.

Melanie had mentioned that she likes pairing students with each other, that's fantastic. If you have a group that allows one-on-one instruction amongst peer coaches, that's wonderful, I'm glad that's working for you Melanie. And I know other people have got stuff out there. Brag on yourself a little bit.

Timothy Miller just mentioned that when they're working with LEGO Robots, they pair some of the better builders with those that struggle. I love that idea on a lot of levels, but then one of the main reasons is that, at certain ages, fine motor skills are an issue, right. So, allowing kids to tinker with that, but with the watchful eye of like an older peer coach, allows for that exploration, but it also keeps them from getting too frustrated I'd imagine Timothy. That's a great one.

We might take one more, if anybody else has a great example and then we can move on. Okay we got two more, and I just want to combine them, Erin and Anthony both posted about, it looks like homework help. Anthony has something he calls the academic ambassadors, and they are mentees that are assisting their peers, and I'd assume in the manner of helping with homework or other concepts.

And then Erin, the same thing, she's pairing student to help in those after school hours with homework, which I know you guys have a structure to that, but sometimes it can be a little wily nily after 4:00 PM, so that's awesome that you're using those older students to provide a little bit of help, obviously in instruction, but, also that accountability in making sure that kids are actually sitting down at the end of the day, where you're trying to put out probably a million other fires. So, thank you Anthony, Erin, Timothy, and Melanie for that.

We'll go ahead and progress on to talk a little bit more about some of the nitty gritty of how you build your peer coaching program, now that we've identified some of the components to getting it started. So, I will let Gail click on through and talk about selection.

Gail Hutchinson: Alright so, how do you pick good peer coaches? You want someone who is always willing to participate and serve. Many times, you'll have those older kids that just love hanging around your program, they're always there, they're always willing to help you, so they're already showing themselves to be very willing to go ahead and participate.

You want to also pick those students that demonstrate how to talk to audiences of all ages. And sometimes, this is that child that has siblings that are different ages. And you just notice that as you see them interacting with one another. It could also be a peer coach who likes working with younger students anyways, they're always looking for some way to assist in that matter.

So that would be someone who you might consider. Also, you want to consider those who learn quickly and can communicate content in the simplest terms. Maggie talked about that just briefly on the last couple of slides. So those who are really able to take a concept and put a different spin on it, we can also learn from those youths, they can talk to students in their own language, and that's very powerful when trying to translate STEM or STEAM concepts.

Also, you want to choose those students who show leadership capabilities. And sometimes leadership capabilities can play out in different ways. You want those students who have other students that follow them, but I'm sure many of you have sometimes a not so positive child who has students following them, not necessarily what you would like to be going on in your program. So perhaps, it's a child who has leadership capabilities but they're mischievous.

But that may be an opportunity for you to take that child and take them under your wing and have them turn those leadership gifts and capabilities around and give them a purpose, we talked about the power of purpose, and we'll mention that again and again. They may need just a little direction to use their powers for good instead of using their powers for not so good I will says.

Also, you want to choose peer coaches who radiate an excitement that is contagious. So just in the same vein that I talked about showing leadership capabilities, if they are that student that is just always very positive, always very fun, and they just generally have other children in the program who want to follow them and do things with them, that is a great person to select as a peer coach.

Maggie did you have something to add?

Maggie Goodman: I just wanted to give an example to this. We had a peer coach that did the activity, drop on a penny, which I'm sure a lot of you are familiar with, which, it's not necessarily my most favorite activity, just because I don't think it's as exciting as some other things that we get to do, but it was amazing to watch this peer coach be so enthusiastic about it at this event, and eventually, it was almost like watching someone at a carnival, like he was just bringing in folks into the fold, to see people drop water on a penny.

And so, I think that speaks to that excitement that is contagious, you know. If you have someone that demonstrates that kind of energy, then most certainly, use that when you have peer coaches at your club.

Gail Hutchinson: Absolutely. We're going to give you just a minute to think about what are some additional variables you can consider for selecting peer coaches at your site? So what are some other things that maybe we didn't mention?

Melanie talks about how the children get along with one another, and that is also very important. One of the things about peer coaching for you as professionals is, hopefully this will help you out in your program, to extend your programs if you

can use peer coaches. So if they have professionalism and they know how to turn it off and on when appropriate, that is very important.

Anthony also mentions academic ambassadors that they have among the youth, and using mentees who are struggling in academics and are assisted by their peers. And so that is another good way to select peer coaches.

Maggie Goodman: I think, this is Maggie, I think that's a good one too, because if you already have programs that are working well at your site, we're, not by any means saying like start from the beginning. If you already have something that fulfills this role, just think about enhancing it through the lens of STEM programming.

But yeah, if you already have a club or those informal peer coaches, start thinking about how do I get them invested in teaching STEM concepts.

Gail Hutchinson: Absolutely, Sarah also brings up another good point, she wants to know, does attendance make a difference? Absolutely. You definitely want peer coaches that you can count on. If nothing works, then you thinking you have something covered as you go into your program date and then somebody doesn't show up, so absolutely recognize who shows up and then, you know, pay close attention to those youths that you want to build, because they're showing up, because they're showing tenacity and consistency.

Maggie Goodman: And that might even be a catalyst for getting participation up. If you know that you have students that you would like to see more often, slowly allowing them to incorporate some of those peer coaching roles into what they do, could possibly up the attendance that you have there.

Gail Hutchinson: Absolutely. Alright, I'm going to have you think about and just take a few minutes to compile an informal list of some potential candidates that you're already thinking about or perhaps you're already using at your sites. And we just want to give you just a couple of minutes to just jot those down while you're here participating in this webinar.

While you're jotting that down, somebody else posted the answer, all those who are interested in pursuing a career with children, that's the perfect candidate, because you're not only helping them gain some leadership skills, you're also doing some development in getting them ready for the work force.

Maggie Goodman: And on behalf of folks that work in the STEM museum, anyone that's interested in pursuing a STEM field, we want them to be able to communicate those ideas to people, so think about coaching those folks too.

Gail Hutchinson: Mm-hmm (affirmative) I'm just going to give you 30 more seconds to jot down a few more names, and then we're going to move on.

We want to talk with you about some successes that we've seen here at the Museum of Science and Industry, just to give you a little background, we do an internship in the summer, and its several levels of peer coaching. We bring in

interns that are college age, then they coach high school students, then they coach younger students, either in the museum or we have a partnership with Chicago Public Libraries, and we take some of the teams out.

And so they then teach those STEM concepts to third through fifth graders. So it is a multi leveled peer coaching system that works very, very well for us. So we're going to talk about a couple of those successes, and I'm going to turn it over to Maggie.

Maggie Goodman: So as Gail said, we've had a lot of success with this program, essentially it's almost running a summer camp when we're off site for those Chicago Public Library sites, and then on site, our students are doing things like running full shows on the museum floor or facilitating experiments at cart.

So it's a really interesting thing to see not only high school students rise to the occasion and act so professional, but to see them grow and eventually some of them take on roles at that college level, they become our lead interns, and I want to talk about one of those and specifically his name is Jimmy. If you look in the bottom right the young man at the podium, Jimmy has, he started actually the first year that I was at the museum was his first year as an intern.

And, he was your typical, you know, 15 year old guy working with kids. So he was very happy that the focus wasn't always there, but a lot of fun, and demonstrated, like we said, that contagious enthusiasm for the work that we were doing.

What was remarkable to see, not only with Jimmy, but with all of our students is how they grew over the course of two to three years. And now Jimmy actually, not only was he a lead intern last year, and helped coordinate and facilitate our shows on the floor of the museum, but he actually has worked with us throughout the year with our program that specifically works with teen volunteers on Saturday.

So we are hoping to not only foster abilities and opportunities for folks like Jimmy, but this is, you know, institutional and we can train people at that age and bring in those folks to work with us throughout the year. We're helping our own program, again, it's about that program sustainability component as well as making sure that students are leaving this building feeling empowered, and are ambassadors for the work that we do, but then most certainly for STEM.

So Jimmy's one of our great success stories. And then Gail's going to speak a little bit about another one, Danielle.

Gail Hutchinson: Danielle is another success story, she's been with the program as an intern for several years, and last year, she was one of the interns, not the lead intern because she wasn't quite old enough yet, but we actually were able to use Danielle as an assistant as we created some curriculum. The other thing that Maggie and I do is we work with educators, and we train on two curriculums per

year for out of school time professionals, so we give them the curriculum and we give them all the materials that they need.

And Danielle helped us do some of the research for that curriculum. The other success about Danielle is that she is now an employee here at the Museum of Science and Industry, while she is finishing up college, and so, she was just one of those teens that just had a great attitude. I think that's the other thing that's very important as you're selecting your peer coaches, who has a great attitude.

Then I'll turn it back over to Maggie and she'll talk about Dana.

Maggie Goodman: Dana was another one of our success stories. She, first of all again, that contagious excitement, but what's so great about Dana is that it didn't stay within the museum, she actually is now, she received a full ride from Valparaiso, and is now a sophomore at Valparaiso and not only is she pursuing a STEM field, which we're incredibly proud of, we're continuously trying to bring people into that fold, but more than that, she is now a coordinator for a volunteer program that now runs after school science clubs in the Valparaiso area.

So the work that we've done here in the Chicago land area and parts of Indiana, it's great that we can encourage people to start that work in areas that we necessarily can't reach, whether it's limited by funds or just man power, it's great to see your work continued by people that you cared about that and that you've trained, and are now sharing that in other parts of the country, so we're really proud of Dana and it's great to see successful science clubs outside of our jurisdiction, so we're really proud of her, and we'll let Gail talk about our last positive story.

Gail Hutchinson: You know, sometimes we have positive stories that are not necessarily as bright as, oh they got a college scholarship or they work for the Museum of Science and Industry, sometimes, again, it's about giving someone a purpose and the power that's behind that. We had a student who was one of our interns, and he actually did not know where he was going to live when he left, so he was a homeless teen by no fault of his own, just his family situation.

And, only by having relationships with this young man and talking with him, did we learn about that. And it was just sort of by continuing to ask questions, because he seemed very moody and not willing and his attitude wasn't good. But sometimes we're required to again, to build relationships with these children and figure out what's going on.

And so once we were able to figure that out, he continued with the program and he really has just an innate gift for public speaking. And so I was able to pull him aside, and he thought he was in trouble. But I was able to pull him aside and talk to him, and say to him, you don't understand how powerful you are when you speak and when you teach. And he had never realized that.

And so, that was something that happened one summer, you know, he went away, we sort of lost contact with him. But I'm happy to say that I just saw him a couple of months ago, he came back to visit us here at the museum, and this young man is now actually in college and doing very well. So it is really a positive story. Sometimes you don't get to see the end of that positive story, but just planting those seeds in individuals and giving them a purpose to show up every day, to help someone else allows them to not be so self absorbed and to help others, which ultimately helps them.

So those are just a few, and his, I'm not even going to call his name and his picture is not one that you'll see on the screen, but, just the power of purpose is just so, to say it again, powerful. Now I'm going to move into how you begin to train your peer coaches.

So, think about who your peer coaches will be serving. Will they be serving an audience that is closer to their age, or will you take a 13 or 14 year old and have them work with kindergarten students. That's very important. You want to build on the strengths that they already have, and prepare them to teach independently.

So it's really important to tap into whatever their current skill set is. And it's also a way of encouraging those students as well. You want to begin with a pre developed script, and we're going to give you, and you already have in your possession the handouts. And we're going to go over probably four or five activities, whatever we have time for.

But you yourself, as after school professionals, want to take that pre developed script, and then you want to tweak it to serve your program, so that's the first step. Then you want to have the team make it their own script, and you want to emphasize inquiry. Sometimes we think, we have a saying around here. Just stay calm and do the science.

So if you just stay calm and you don't think about too many science concepts, and we're going to give you key takeaways with some of the pre developed scripts and activities that we have. But have them focus on maybe one science concept or math concept, whatever it is, and then, make it their own and don't make it a step by step, leave it open, so leave it very open ended so that they're open ended questions.

And allow the children to discover the science that is within the activity. You want to teach communication skills using activities like improv and theater and role playing. Maggie, I think you heard in her bio, she does improv, and it's just a really easy way with using some of those activities and some of those communication skills, to get into science and to make it more fun.

And then finally you want to model how to teach when interacting with younger participants. And actually I do have one more bullet point after this. So, those students that follow you around and watch what you do and can emulate that,

you want to continue to model that, and that's why you start with making that pre developed script your own, giving it to them, having them make it their own and so forth.

And then finally, and this is very important, you want to tackle conflict resolution and professionalism. Now some of your peer coaches may not know conflict resolution, but what you can teach them is when x, y, and z happens, come find me. That may be their level of conflict resolution, but you will know that and you will know that by having relationships with those particular students and potential peer coaches.

And then you might want to set aside, this is something that we do with our teens, we give them expectations on what we think professionalism is in this particular role. And that changes of course, depending on what setting they're in. So here at the museum, we have a dress code, they have to wear museum t-shirts, they have to wear jeans. We talk about those jeans can't be holey, those jeans have to be nice.

So whatever professionalism is for your site, so that's something that's going to be geared towards what you do in your program.

Alright, I'm going to turn it over to Maggie and we're going to get into the activities now.

Maggie Goodman: Alright guys, so this is just getting to the nitty gritty of some of the most successful peer coaching programs that we've utilized. Again, a lot of the work we do is in the summer, and the museum has a program called Summer Brain Games. If you access the MSI website, you'll be able to find that basically it's a set of 24 easy lesson plans that are just kind of canned lessons that most of your peer coaches would be pretty comfortable in actually teaching.

But we wanted to highlight a few. But most certainly, when you have the opportunity, please check that out, because again, other than the packet that we've shared with you, there are a lot of fantastic activities within the Summer Brain Games page on the MSI website, and that's MSI Chicago .org.

But I want to talk specifically about the packet really quickly that you have. If you will see at the top of some of those lessons, you'll see a blue dot and you'll see a green dot. And let me just say that the blue dots represent ... Hold on, let me actually, before I say this aloud, let me double check to make sure I have that correct.

I don't want to tell you incorrectly and I can't remember off the top of my head because I've slept since then, forgive me for that. Let's see, at the bottom of the packet, you'll have a note section, and in that note section you'll see that the blue dot denotes activities that are appropriate for middle school aged peer coaches. So if you have a younger group, and you would like to get them started in peer coaching, a blue dot activity would probably be your best bet.

And then the green dot denotes activities that are appropriate for high school aged students. So when you're flipping through that packet, just remember blue younger, green older. That gives you a little bit of an idea, and of course you guys are pros at this, you probably have a ton of activities in your back pocket, but we wanted to talk about a few really quickly, and I'll let Gail start with one of those in particular, our stomp gliders.

Gail Hutchinson: Stomp gliders are really popular activity that we do and that is just loved by all, and it's taken on many forms. The one that you have, and I'll put it up also on the screen, is called the amazing flying daredevil. But they are stomp rockets, stomp gliders. So, in this iteration, we've made them daredevils, but you could easily make them superheros.

You'll need some very basic materials for this activity, a pool noodle, just a tube that fits into a pool like a short piece of one inch PVC pipe, and a glow stick canister. So it can be any of those things.

You'll need a two liter bottle, so you need to drink up those high fructose corn syrup drinks, because we have found that finding two liter bottles is very difficult to order. So, have your families bring in extra two liter bottles when you're planning on doing this activity.

You'll need a ping pong ball, you'll need some duct tape, some scotch tape, paper, fabric is optional, markers, and scissors. A hula hoop is also something that you can use as a target. And that worked out very well for us when we had our team do it on the floor here at the museum, to create a target, because we didn't want, and neither did our facilities people, want rockets going in part of the museum.

So just be careful with that. So basically, what's happening here is that we're talking about compressed air. So, everything needs to be tight, because you don't want any air to get out. I will point out that as you build the launcher, there are a couple of ways that you can insert the piece of paper, which is going to be that launcher. You can either put it inside the PVC tubing and that's the second picture on the right is modeling that, or you can put the piece of paper on the outside of the tubing.

These directions say inside, but try doing it on the outside. It needs to be a snug fit but it needs to be able to have some movement, because that's what's going to fly away.

Where you can get the art in with this activity is by building your superhero or your daredevil or whatever theme you choose, and this can be sort of the arts and crafts of this lesson. And those seem to work well when we pair that art with our science or math, it seems to tap into all of the different intelligences that students innately have.

So, the other thing is you want a little bit of weight on the end, so it can fly. Because what you're doing is stomping on the two liter bottle, it shoots the compressed air up, and then it shoots off.

So if you have a little weight using the ping pong ball, which can become the head of our daredevil or superhero, it's going to fly further. I will give you another tip for this activity. If you maybe put a hat on your daredevil in the shape of a cone, that also adds more weight, and will tend to go a little further.

But these are some variables that you can have your peer coaches and ultimately those who we're serving, the younger children, they can figure those things out. So this is really an engineered design type of activity, and what that means is simply you create something, you're like a scientist, you create something, maybe you have a hypothesis, an educated guess as to how far it's going to go, and then you can shoot it off.

I just want to quickly, the many more things that I can say about this and just so we have time for questions, I'm just going to give you the science of this activity again. When you stomp on a bottle, you compress the air or you squish the air inside. The compressed air, it has to go somewhere, so it escapes through the easiest way out, which is the other end of the launcher.

So, I will end this here and I will turn it over to Maggie who will introduce another activity.

Maggie Goodman: And just a point of clarification for you guys too, the stomp rocket or the daredevil, this is actually listed from our Summer Brain Games material, so this is not in the packet we've provided, but again, it is available on our website as is the tent activity that's a little later on in this presentation.

But let's just highlight a few more activities. We won't go in too in depth with these, because again, they're provided for you and you can kind of tinker with them. And of course reach out to us with any questions. But, we'll highlight a few that we've had great success with at our library, so we'll go to the next one, which is our finger printing activity.

And as you can see, oh, sorry, you know what actually that one is not dropped in, but that is in your packet. Which is basically talking to kids about the different types of finger prints.

The activity you have on your screen right now is the garden in a glove, and that's utilizing a plastic glove like you'd see in a cafeteria outfitting, as just a miniature little greenhouse to kickstart some seeds that you might have there on site, it's really an easy activity, and we love it because we so rarely have the opportunity to really dive into botany, but especially this time of year, if you wanted to start your peer coaching group tomorrow, this would be a great one to actually think about utilizing, because it's so timely as far as seasons go.

A few more that we have, oh there's fingerprinting, so you can see at the top, it's appropriate for middle and high school ages. We'll click on through, UV beads, you've probably seen before, you can talk to kids again, a great summer activity about the sun's rays and how UV rays affect us, and monitoring that with the beads, that's a really easy one to that also incorporates a little bit of art, because you are practicing.

And then, we'll get to some of those final ones here. This one is one of our favorites, because it's such a cool end product. We love building newspaper tents, and talking about the engineering design cycle and how the triangle is the strongest shape that we have as far as engineering goes. And kids love it.

I will put this disclaimer out there though, there's quite a bit of prep work, sometimes if you have some fine motor skills that are, if you have younger students, that haven't quite developed the fine motor skills needed to roll up these newspaper pieces, that's where maybe having peer coaches to help build those pieces first, and then have everybody in the group assemble can help quite a bit.

But that gives you an idea of the lesson package we've provided you with, and again, I know we're breezing through these, but, if you have a chance, and you'd just like to email us, you're more than welcome to shoot questions our way, whether it's for questions about this or resources.

But speaking of, I think we're going to get to the portion, we'll just kind of recap it, and then address some of the questions you might have.

Gail Hutchinson: So again, just as a recap, what does peer coaching do? It fosters youth development and community investment, we talked about that a lot. It gives everyone ownership and autonomy, which is going to create more consistency in your programs, and actually, build your mouthpieces for why to come to your program.

It's going to promote a curiosity in STEM and STEAM, and a deeper understanding of those topics. And then again, we've talked about this a lot, the power of someone having purpose just can not be over stated.

Maggie Goodman: Awesome, and I do want to add too that you know, obviously these are new ideas, but don't feel like you have to just start, again with a clean slate, you're already doing so much of this work, and now just pony in some of these activities that think about looking through the lens of, how do I use my peer coaches to communicate?

I think now we're going to take a few questions at this time, so we'll give you guys just about a minute to throw in anything. If there's anything else that's floating out there, we'll address that maybe via email later on, we'll talk to Kara about that. But right now, we want to make sure that we don't have anything lingering,

anything to clarify. So take a few minutes and let us know if you have any questions, or just some ideas.

Kara: If you would like to ask a question using your microphone, you can raise your hand and we will release your microphone to you.

So if anyone has any questions, this is your last opportunity to ask Gail and Maggie, otherwise you are able to email Gail and Maggie at their emails, which have been provided on the slides as well. Looks like there's some great resources here, knowing that you have some very easy access to free lesson plans with STEM activities.

I think there was some great comments here. Gail and Maggie, do you have any closing remarks?

Maggie Goodman: I just want to comment really quickly on the resources page we just threw up, this is Maggie by the way. Click to Science is a great site that is I believe through the University of Minnesota, possibly, or Kansas, I can't remember, but on that site, they really dive into how you work with students using inquiry based teaching methods. So, how do you ask those open ended questions, what are the best practices for coaching kids through scientific concepts that are sometimes very frustrating to actually communicate.

So if you have older student that might be a great like crash course in teaching them how to actually use inquiry based learning. And then also, if you look under the MSI lesson resources, there's the url for Summer Brain Games that I was talking about earlier. Also have just a generic classroom activity landing page as well that's got a ton of stuff, they're all very tried and true. In fact, we've used these on numerous occasions.

I can't tell you the number of times that we've done stomp rockets, big hit. But again, you have our information there, please feel free to reach out to us. We're just thrilled that we have you know, 50 participants in your corner of the world that are excited about peer coaching, specifically peer coaching as it relates to STEM, because it's a really fascinating thing to see an older student or even a middle school aged student take those reins. Its' really cool to watch.

So thank you for joining us today, Gail, do you have anything you'd like to conclude?

Gail Hutchinson: Just be easy about this, and I think using the one science concept, like if you can just get your peer coaches to communicate one small science concept and then have those who they're coaching have fun with it, and then them themselves have fun with it, I think that's key. Sometimes we get caught up in our heads and we want to make it very, very hard, but remember you're in a partnership with your entire community, and that includes the schools that serve your children and your families as well.

So just be easy about this, and thank you so much for all the work that you do to run your programs and create wonderful communities, and it's been an honor to talk with you guys. Please reach out to us if you have any questions after this webinar. And thanks again.

Kara:

Thank you Gail and Maggie, there were many, many great ideas shared here today, I hope you'll jot down at least two or three that you want to follow up on, and maybe even contact Gail or Maggie if you have further questions.

That concludes our session for today, we hope you have enjoyed the presentation, and I'd like to thank Gail and Maggie for taking the time to share this information with us. Take a moment to complete the survey that you'll receive via email, and thank you very much everyone for joining us, and have a great day.