

## Fun With Math & Science Workshops 2013-2014

### Final Report Comments and Feedback



### What Went Well In Your Workshops?

The parents loved the workshop! They were so thankful we were offering this type of class. They were really excited to go home and use the thumb drives. Throughout the night we heard them start to phrase questions in a math and science vocabulary (i.e.. which animal on this rug is the tallest! Is it bigger or smaller than this one? What shape is the leg?)

The parents and children had a wonderful time. It was great to see all of the interactive learning between parents and children and other children who were participating.

The parents loved the Lego story. I read where they had to put the characters together as I read. The parents helped them. We had an interpreter for the Non-English speaking participants. The children loved the wall graph. I asked them ahead of time who they thought would be the shortest or tallest.

Experiments and math games both went well. I forgot a blow drier for one of the experiments so they had to do that one as a "take-home" experiment, but it was fun.

We started with a storytime and sharing with the adults how to get their children inspired about science, math and the science of music. We set up six stations around the room: measuring, sorting, counting, comparing; bouncing bubbles; musical bottles & boom whackers; examine with magnifying glasses; sink or float; and block play. We were pleased to see how much the adults and children enjoyed the activities and how well they interacted with each other. We observed the parents asking 'what if' type questions and really getting involved in the experiments. We also really emphasized the importance of reading non-fiction books with their children and suggested that they check one or two out every time they check out fiction books. We also gave examples of how they can combine fiction and non-fiction books on the same subject and pointed out that some of the science books have experiments on the last pages. We explained how much vocabulary their children would learn from these books and the advantage that would give them when they started reading. We displayed lots of non-fiction books along the wall on the floor and put up a sign that said 'don't leave the library without one.' They checked out armfuls and we were told by the circulation staff that they checked out more from the children's library.

Having self-guided stations! We were on hand to get people started and answer questions, but all in all it was a great way to let the parents practice doing these activities with their kids. The kids never got bored, and the only meltdown we had was due to toy jealousy over a doll brought from home, not boredom.

Having the blocks and gears toys out before we started...the kids had something to do while the parents arrived, signed-in, and measured all of the family members for the comparison activity.

I added a few more simple hands on experiments and activities with things from around the house...things like mixing colors and doing a dice/marble counting game. I also put the blocks and gears sets out early so that children could play while the families measured for our height comparisons. Before I started working with the children, I pointed out to the parents that their children playing was actually science at work. And then we watched them for a little bit longer so that the point could sink in.

Parents and children liked the hands-on science activities.
Parents liked the power point slides; Ideas on how to incorporate science/math in everyday activities; Hands on activities for kids.
The "activity" stations were successful with the children. Parents thought they were great but "wouldn't set them up a home". I explained that in their home they wouldn't need to have activity stations set up all the time but to encourage their child to set up these kinds of activities as they play or do school work.
The children and the parents really enjoyed the hands on science activities.
The science activities were wonderful and everyone loved the hands-on activity stations.
All the activities went well. Switching between some talking, group activities and individual activities really helps.
Attendance was down from the Feb 2013 Math & Science workshop. Although attendance was less than anticipated all of the stations generated interest, promoted learning, and developed math and science skills. Each participant seemed very excited and parent involvement was great. Participants did a great job listening to directions, asking good questions, and completing tasks.
I used a handout to help guide us through the steps of the Scientific Method during the ice experiment, which helped children and parents understand the systematic approach to science.
Families love the stations. (Ipad educational math & science apps, butterfly, sink or float, microscope, candy math, measure me, puzzles, blocks, patterning, etc.)
Everyone LOVED the different stations, and several kids were so upset to leave! I had a few parents come to me during play time and ask about the apps we had on our Math & Science iPad and also where to buy the magnetic gears.
The adults were very excited about all the ideas that they felt they could actually use at home.
The parents seemed really excited about the information they were given and all the ideas were things that were easy for them to do at home.
The parents and teachers seemed really excited about the information they were given and all the ideas of ways to incorporate math and science into their lives.
The parents and teachers seemed really excited about the information they were given and all the ideas of ways to incorporate math and science into their lives.
The hands on activities are always a hit. They love the straws and connectors and gears.

### **What Was the Biggest Challenge/Concern About the Workshop**

The workshop went very smoothly and we didn't have any major challenges.
I had to speak a lot slower to allow for translation, this is a bit difficult for fact-relaying information but it was okay.
Attendance is always a concern. It seems that there are just too many things happening in this town, and it can be very hard to get parents in the door in the afternoons/evenings.
The hardest thing for us was finding time to schedule it.
We don't have a separate room for events, so we had to hold the workshop right in the middle of the children's department. We open at 10 am and the workshop started at 10:30, but we had parents and kids jumping in and starting during se-up as early as 10:10, so I was constantly going around fixing things for the actual start of the program.

It was a young group - transitions were tricky!
I try to get the information to the adults, but the children are SO excited! It get pretty loud at some moments, and I worry that the parents will miss some of the information. But we had FUN!
There were technical difficulties--the slide show wouldn't display on the screen. So I scooted the chairs close to me and showed them the slide show on my laptop and elaborated on the script.
Some children who came were very young and needed to be with their moms.
Scheduling my time with the school's available time has been difficult. My work load at the library has been very full this year and the school district is a 4-day program with Monday off- which was the one day I had more time to do programs!!
It's always a challenge to accommodate the different children's ages. Tried to have very simple activities as well as more complex ones for the children. Some children were distracting (but that is pretty normal challenge). Teaching the parents is hard when they are trying to keep their children quiet. I find that talking to them as the children do the activities is beneficial.
There simply wasn't enough time to treat the concepts. We split the class in two sessions and has science skills in one and math in the other.
I had a broad range of kids. Some older siblings came. I just tried to make them the mentors. Also I had late arrivals that made a distraction. One family showed up when we were finishing up. I let them try some of the activities but I have not included them in my numbers. I'll try to invite them to the next workshop.
The workshop was planned and designed by Debbie Allen. Unfortunately, she was unable to execute the program on the scheduled day. In anticipation of this, Debbie trained Heather Stout and Greg Betzold to hold the workshop in her absence. Although this was a challenge, each staff member communicated clearly and the event went smoothly. It was an excellent opportunity to hone communication and team work skills.
Lengthy to set up and take down. We have 10 stations for families to visit. We wanted enough stations for families to not have to wait.
It was hard to keep the kids' attention through my talk about the importance of Math & Science. There wasn't a really easy way to intersperse it with books and songs. I felt like I had to rush a lot of concepts for parents to keep the kids engaged and to also allow plenty of time for the play stations.
There were no real challenges. The workshop went well once I learned the material.
During this workshop, we had several Spanish speakers come through. Unfortunately, the take home materials are not in Spanish and they did not have anyone at home that could translate for them.
The biggest challenge was not having anything in Spanish.
The biggest challenge was not having anything to give the Spanish speakers.
Getting all the people who signed up to attend.

### **How Did Hosting the Workshops Benefit Your Library or Your Community?**

Most the families who attended had already done our ECRTTR workshops, but they had no experience talking about Math or Science with their children. Because children are naturally curious, I think they were able to find LOTS of things they can do at home together.
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We had 6 families sign up for a library card. Many of the families stayed after the workshop and checked out books, learning kits and DVDs.
I had parents attend that had never been in the library before and older siblings that hadn't either. They didn't realize, I don't think, that it doesn't cost money to come to our programs.
Got one family into the library who seldom comes.
I do believe that we managed to emphasize the importance of incorporating science and math into everyday routines. Hopefully, this will help those children to get a heads up in these fields before entering school and give them a positive attitude toward these subjects. I feel that the workshop benefited the library because it demonstrates to parents that we really are partners in their children's education. The workshop also showed the adults what a great resource the library is for math and science books.
I had hoped to get new faces into the library, but we wound up with folks from our usual storytime crowd. We tend to think of them as not needing this sort of program because they are already so good about reading to their kids and know so much about early literacy. <i>However</i> , the parents turned out to be really happy with the program and said they learned a lot! One mom told me it was great because it reminded her of things she used to do as a child, like play with buttons, that you just don't think about anymore because of all the digital entertainment and fancy toys available now.
It helped parents see how math and science is an integral part of reading skills
Parents are aware that even if they don't feel confident about teaching math and science concepts to their children, we have a lot of resources at the library to help them.
The parents seemed glad to get information to help their children prepare for success in school. Plus we had two moms sign up for library cards.
It was nice to have multi-generations attending: One lady, a great-grandma, brought several of her great grandchildren. A grandmother attended with her daughter and two grandchildren, so I gave the grandma her own book and flash-drive.
The parents that did participate at this workshop and the one I tried in the spring were appreciative for the ideas and helps. Our library will incorporate many of the activities in our programming.
We had several families that I have not seen in the library come to the science workshop. I overheard a lot of positive comments from the parents. I had parents inquire about other activities they library holds and are interested in attending them.
The workshops were fun family events that helped bring awareness to early learning in math and science.
I think these families were excited about trying more things at home and other library activities. One family were going to check out their 'research' book about polar bears because they found it that interesting.
I feel that anytime an event promoting math and science skills to pre-school aged children is offered and attended by families it is a benefit to the community. The Lewiston City Library is proud to offer events like this in our community. Promoting skills to our area's youth is always a benefit to our library! With each M & S workshop, I notice more men coming in with their children and interacting in fun and positive ways.
This workshop will help prepare the kids to participate in My First Science Fair next month and directed families to lots of great library resources.
Got the families thinking about how to incorporate those STEM teaching moments into their daily lives. The thumbdrive resources and science book really motivates families and give them a good starting point to do that.

The families expressed gratitude for a supplementary class expressing the importance of early math & science skills and how to incorporate them in the lives of their young children. I talked with some parents who said they were glad there was finally a class that covered these topics, since they can't seem to find help elsewhere.
I will be doing this workshop on March 18, 2014. I plan to reach 10 families.
The Head Start parents were able to see a representative from the library and were able to connect a face with the First Books programs that they have been participating in.
The Preschool parents were able to see a representative from the library and were able to connect a face with the First Books programs that they have been participating in through the year.
The Preschool parents were able to see a representative from the library and were able to connect a face with the First Books programs that they have been participating in throughout the year.
We had a new library card issued and got some new teens into the library (they were helpers). They are excited to help with other projects and take part in teen activities here in the library.

### **Comments and Suggestions About the Workshops**

Our format seemed to work really well this time. Started by demoing the game board then did an enhanced storytime highlighting all of the skills (Data, Patterns, etc.) We put fun dice games and counting songs between the stories. Then allowed the families to rotate through hands on math and science centers. 8 of them total. We planned on an hour and it actually went 1.5, but we figured it would. One of the children who attended last night just ran in and said " I remember that program last night and I played I spy!" His mom said they went home and played the gameboard for 1.5 hours)
The Powerpoint is great and easy to use. I added to it the poster of the six early literacy skills from the ECRR kit. The parents were shown resources that we have available for them to check out that will help them work with their children on each skill. Last year I had the children play with the blocks during the presentation. This year I didn't. I think that it was better letting the children play, and I plan to do that at the next workshop.
The stand-up board was a great tool. People are always looking at things while they are waiting. I like the small booklets that we gave them as well as the bookmarks.
We did a storytime presentation, with three books, three math "games," a science experiment led by me, and then a set of three experiments at child/adult leisure. Everyone seemed to enjoy the format.
It was a challenge to present the information that we wanted to get across with the children and parents together. However, we really emphasized using the thumbdrives. I think the hands-on portion gave them ideas of what they can replicate at home.
I skipped the presentation altogether. Instead, I put out 6 self-guided activity stations. Each station had an instruction sheet, and each instruction sheet had information from the presentation on it as well as suggestions to try at home. Next time I would make copies of these available, since the moms were all taking cell phone photos of the sheets so they would not forget later. A formal presentation simply would not work for us because we would be trying to have it right in the middle of our stations due to our space constraints.
I'm still working on flow from one activity to the next. Any suggestions would be helpful.

I like the hands on activities. It's a little difficult to talk to the adults over the excitement, but it seems like the best way to show how easy teaching math and science concepts to children can be!
We set up a couple stories and several activities for the children to explore while the PowerPoint was being presented to the parents. The parents enjoyed exploring these activities with their children after the slide show.
Debbie showed the power point while Francine supervised the children playing with blocks, experimenting with vibrations and "sink or float", and measuring their height. After the slide, the parents and children worked together on several science experiment and fun math-related craft.
The parents like to see their children participating with the learning activities setup. They watched the powerpoint -somewhat! My groups were more into visiting so I did more working ideas and techniques.
It is hard to present with children and parents! I really would like to be able to explain more to the parents but know they will not be able to listen because the children are active. I do think that it helps because parents see how much their children enjoy the activities though. They stay longer and the children and parents ask a lot of questions on where to find the materials, etc. The parents are with the children and I see them participating alongside of them!!!
We didn't use the powerpoint. We featured story/activity combos for each skill which helped hold attention. We held the workshops with parents and children together - it was so interactive that children did not get bored while we talked about math and science concepts.
Again I used the Powerpoint for my outline and notes. Although this time I started by showing the gameboard. General outline of activities: survey and graph footwear and then ages: explanation of scientific method and science activities (sink or float, shadows, build a bridge): observe an animal from calendar picture and then find out more info from a book: read a non-fiction book; measure all the kids using crepe paper and put them in order: math activities (make play dough, shape hunt).
The Powerpoint is full of useful and informative information, but it's too long to present to parents with preschooler in tow. During the actual program I think the power point should be playing for parents to view as desire. This would be beneficial for the visual learners and also help generate excitement and show families the importance of math and science education and learning.
I created a few handouts that I send home with the families - one has the steps of the Scientific Method, and also a magnet with questions about math that parents can use every day. I've also done lab notebooks in a previous workshop.
We have shortened and simplified the powerpoint. We start out with a mini-storytime using a simple math picture book and a science one as well. We have a math song, a science rhyme, an experiment demonstration, and then go into the powerpoint and the benefits of the STEM activities and lastly have the majority of the time for the families to explore the activity stations.
I did not use the Powerpoint except as a printed reference. If I had gone through all the slides, there would have been no time for exploratory play. Since we did the class in conjunction with ECRT, we had to be a little stingier with our time. Maybe if we did it as its own separate program I would have had more time.
Everything was useful and well received.
The portion of the workshop went very well. I had a translator for the Spanish speakers.
I didn't use the powerpoint. It is too cumbersome to use during the workshop and I'm able to communicate the golden nuggets better without it. The children played with the toys while the parents went through the stations.

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The power point is really good. My families love the time to just do the stations that we set out.

### Comments and Suggestions About Materials

It would be nice to provide them with a few picture books in addition to the encyclopedia. Maybe Actual Size, or something like that.

The materials provided for the Fun with Math and Science Workshop are excellent and of high quality. We love the new magnetic gears and the straws and connectors building set. The children has so much fun and were very creative. The display is beautiful and very informative. The parents were excited to see the information on the thumb drive and to try the game.

I love the books & thumbdrives, the parents in this case would not have access to these particular items otherwise.

The materials are good.

The parents loved the thumb drives and were excited to get the free book. The display was great and looked very professional, and the families were excited to receive the free encyclopedia.

I thought all of the materials were great and the families were excited about their freebies.

The blocks and the magnetic gears are a HIT!!! Several parents (due to time of year, I think) said they might consider this type of toy for holiday gifts!

I used more activities and experiments that I found on the Idaho Commission for Website links. Keep the new ideas posted on the website, please! As you can see from my surveys, one parent left without doing the survey! I suggest handing out the books and/or thumb drives after the surveys are returned. Lesson learned.

The books and displays, along with the blocks, gears, straws & connectors provided by the ICFL were very helpful and greatly appreciated. The children and parents enjoyed playing with them.

The books and displays provided by the ICFL were very helpful and greatly appreciated.

Parents were impressed that the library received an iPad and some had never used one so were given that opportunity. They appreciated them. I don't know how many will play the game, though.

Love the materials!!! The parents do too!!! I love the fact that they have a thumb drive with activities on it that they can pull up and do from home!!!

I like the idea of providing info via a thumb drive but I don't know how many people would use it. I think that a glossy report would be better. It would be visible at home and they might flip through it when eating breakfast (trying to think like a busy parent here) where inserting a thumb drive and viewing documents online takes deliberation and commitment. Doesn't lend well to browsing.

The families seemed interested in the book and flash drive and the on-line gameboard. I think they are good incentives for getting the surveys finished.

I know that attendees enjoyed the flash-drive and written materials they received at the workshop and were excited to share them with other community and family members.

Excellent materials. Very helpful for encouraging parents to attend. The families are getting quality materials that are beneficial. They see the benefits just in the handouts alone.
All the give-aways were wonderful and received with enthusiasm from families. We really have no complaints.
Everything was useful and well received.
There needs to have a Spanish translations of the materials or alternatives.
The parents were very excited about knowing that the thumbdrive had everything on it that I talked to them about and more. They didn't have to take notes to remember all the ideas.
The parents were very excited about knowing that the thumb drive had everything on it that I had talked about and more. They didn't have to take notes to remember all the ideas.
They love the materials and are excited to use them at home.

## Most Effective Advertising

In house and website
I think it was a combination of the fliers and the teachers sharing one on one.
Word of mouth
Both of those above, but Facebook was probably the most effective. We had no problem filling up both classes
Word of mouth at storytimes.
As part of our Every Child to Read Program, this time was mostly word of mouth as one mom called at least half of the other families participating in this workshop.
Library staff were great about telling patrons about the program!
Word of mouth seems most effective.
We mainly used word of mouth. We targeted the parents who attend our weekly storytimes, but we also put an ad in the local newspaper. We hung up a flyer in the library.
Flyers sent home with school children
email and facebook
Jumpstart
Word of mouth, plus promotion from library staff.
Online and posters
word of mouth
Word of mouth seemed to be a great way to gather in families we wouldn't have normally reached. Some families who were already signed up to attend let their friends know about the class, and so we reached more in that way.
Word of mouth is always best.
Word of Mouth is always best.
Word of mouth and working with existing partners seems to work the best to advertise.
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Word of mouth



## Advice to Library Staff

Plan for at least 1.5 hours, families love the hands on parts.
It helped that we were able to set up most of the stations the night before. It also helped that I made a check list of what I needed at each station so I could check it off as I was setting up. I will keep this list for the next time I do the workshop.
Have some extra activities planned for a different age group. I had older siblings that I had helping with the wall graph. We used the magnetic gears for a counting tool and an engineering tool. I asked the adults to help the children put together their LEGO characters and they loved it. What a great tool! The Lego book came with bags of Duplos that make up the characters, As you read it says, "Now let's build the snail" etc. Showing how many of what color etc.
Just do it...its fun!
Crowd-sourcing. Two of our volunteers had expertise in certain science fields and one was a teacher. That helped us to offer more stations and gave variety as well. (We gave one of the leftover flash drives to our volunteer/teacher to use with her students.) Have fun!
Trust your instincts. If you think you'll have an older group of kids who can handle sitting through a presentation, do the presentation. Otherwise, skip or abbreviate it.
The hardest thing is being prepared with all of the science experiments that you can do in this workshop. Pick the ones that work best and are easiest for you; change things that don't flow easily to experiments that are easier for your space and your group. Example: measuring all the family members is so involved that I lose some of the kids before we've even started. I'm looking at bringing some other items that can be compared and sorted in the same way.
Make sure your experiments and activities are done with simple things that participants would have at home. It's less threatening that way.
One parent suggested including a question & answer session. I think that would be helpful. It would help me to see if the parents caught the ideas.
One parent suggested including a question & answer session. I think that would be helpful; that would let me see if the parents caught the ideas. I encouraged the parents to continue the good things they're already doing and to be intentional in incorporating more math and science activities with their children throughout the course of the day.
Be happy and excited about STEM (or STEAM now!). Show how easy it is to help a child. Some parents won't be excited as others, but don't slight them. Don't have to set up every "activity" in the booklet or helps-just a few to get parents (or kids) interested. Demonstrate how to get to online activities. Don't be offended if only a few show up for workshops. It is discouraging, but we live in a busy and big library and school district travel-wise. If you begin with a few, word will get out and parent do help demonstrate to other parents (if they liked what they seen!)
Enjoy!!! Don't be afraid to learn some "Science and Math" yourself!!!
Plan a lot of time and do a lot of activities.
I actually did get through the workshop in just over 1 hour. I did fewer activities. I like breaking out to do different activities so don't mind it going longer. Someone suggested that I divide families to their initial activity and it would be a little less crazy. I could make sorting game out of it. This is a fun workshop for kids, parents and the librarian!

I used North Bingham STEM Activities found on the If website. I found the activities useful and relevant, but did change things a bit to better fit our needs. To save time I used what others have already created if possible. It is good to share what has worked to help other libraries.

Do it! I love this one!!!

Make it fun. Show how easy it is to incorporate simple math & science concepts into their children's lives.

I have no real advice to offer. The workshop we hosted went smoothly without any real problems or successes that stood out. I suppose I could recommend doing the baking soda/vinegar experiment for the kids. Their eyes just lit up when they saw that chemical reaction!

I would suggest that you prepare ahead of time and relax and enjoy the fun.

Read over the materials before doing the presentations. Have fun with it.

Become familiar with the materials before doing the presentations and have fun with it.

Become familiar with the materials before doing the presentation and have fun with it.

Do it.