



# STEM PQA Performance Report

Prepared for: Southeast Middle  
(Boys and Girls Club of Greater St. Louis / Missouri AfterSchool Network)

Type: External Assessment

Date prepared: 11 / 23 / 2021



This report describes the results of a Program Quality Assessment (PQA). This introduction will give you an overview of what is contained in your performance report and how you might use it to plan for improvement.

When you are interpreting your performance report, here are a few tips to keep in mind:

- The performance data is given to help you improve your program.
- The conversations that you have with your site team regarding improvement efforts are most important.
- Comparisons against other data sets are available to give you context to understand your own scores.

Follow this suggested sequence for reading and interpreting your performance report:

1. Examine the domains, scales, and items presented in the report. Consider: What scales and items make up each domain? What are the instructional practices that are measured by the assessment?
2. Celebrate your strengths! Identify the items that you feel are successes in your program. What factors do you think contribute to these strengths?
3. What can you work on? After you have identified which items you think could use improvement, refer to the corresponding practice descriptions in the PQA. Reflect on what might be causing some of your scores to be lower than you would like and brainstorm what steps you could take to improve in this area.

If you have questions regarding your report, please do not hesitate to contact the David P. Weikart Center for Youth Program Quality: [scoresreporter@cypq.org](mailto:scoresreporter@cypq.org)

PQA scores range from 1.0 to 5.0. In general, scores can be interpreted as follows:



**Score of 1 = The practice is not in place**

**Score of 3 = The practice is available to a limited extent or in a less advanced form**

**Score of 5 = The practice is widely available and/or with great frequency**

**Scores between 4.0 and 5.0 are excellent in most categories. Scores between 1.0 and 2.0 can be a general cause for concern. Low scores on your performance report (relative to other scores in the report) may suggest areas of potential improvement.**

The scores on your report reflect one of two methods - self assessment or external assessment. Self assessment is a team-based process where multiple program offerings are observed and as a result of a consensus meeting, one set of program-wide scores is submitted. For external assessment, a trained, reliable external assessor will observe a single program offering and score a PQA based on the observation.

To complete the assessment, a rater may decide to mark certain items with an "X" or an "NS", as instructed in the instrument. A mark of an "X" indicates that a specific practice was not able to be scored during the program offering (e.g. Reframing Conflict if no conflict situation was observed). Alternatively, a site may decide in advance not to score specific practices because they are not relevant to the program offering (e.g. fire extinguisher in a virtual program) and mark with an "NS". Those items are excluded from the scale and domain averages, so as not to negatively impact the scores.

When more than half of the items within a scale are unscored, there is not enough available data to calculate a valid scale score. Similarly, when more than half of the scales within a domain are unable to be scored, there is not enough available data to calculate a valid domain score. Throughout this report, those situations will be identified by N/A.

This performance report presents scores at three levels - domain, scale, and item.

- Domain Scores** Each domain consists of a group of related scales. The first graph presents the domains associated with the PQA used.
- Scale Scores** Each scale is composed of specific items corresponding to evidence-based practices for that domain. The first table presents the scales that make up the domain.
- Item Scores** Items represent performance at the level of practice. The second table presents the scores for each item. While the item names in the report are abbreviated, you can view full practice descriptions in the appropriate version of the PQA.

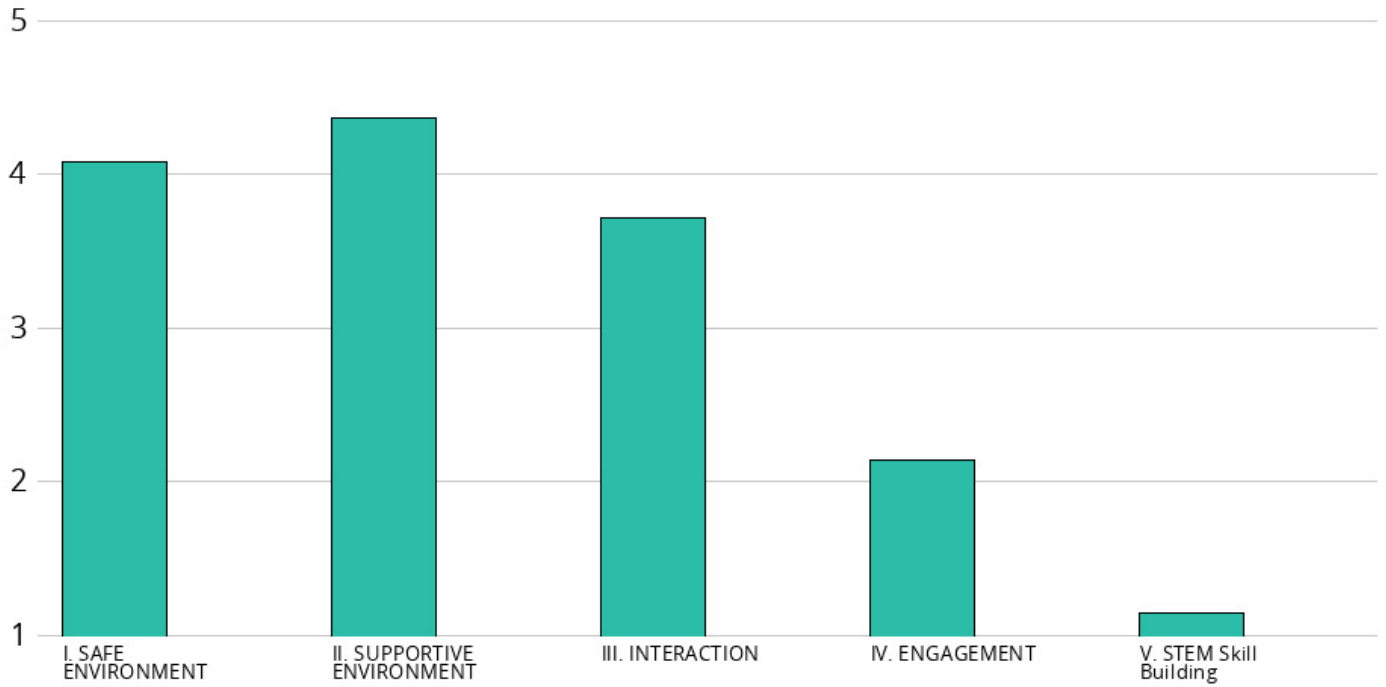
Scores are calculated using averages. Scales are averages of items and domains are averages of calculated scales. Each average is unweighted, meaning that each item and scale contributes equally to the overall average. The Total score at the bottom of the table is the unweighted average of the domain scores. For aggregate reports of multiple PQA entries (e.g. a network report), scale scores and domain scores are calculated for each entry separately and then averaged together.

Figure 1. Sample performance report with labels

Domain	<b>SAFE SPACE</b>	<b>Score Set</b>
Scale	<b>Emotional Safety</b>	2.00
	1 Positive emotional climate	1.00
Item	2. Lack of bias	3.00

# Program Observation Summary

■ Score Set 1



## Observation Identification

Score Set # 1

**Tags:** External  
Southeast Middle

## Observation Details

Score Set # 1

**PQA:** STEM PQA  
**Date:** 11/18/2021  
**Forms:** 1 form  
**Offering:** Check In Power Hour STEM  
 Activity Art Activity Dinner

# Summary Report

## Score Set 1

### I. SAFE ENVIRONMENT

4.07

Emotional Safety	2.00
Healthy Environment	5.00
Emergency Preparedness	4.00
Accommodating Environment	5.00
Nourishment	4.33

### II. SUPPORTIVE ENVIRONMENT

4.35

Warm Welcome	5.00
Session Flow	4.20
Active Engagement	4.50
Staff support youth in Skill-Building	3.57
Encouragement	4.50

### III. INTERACTION

3.71

Belonging	3.50
Collaboration	5.00
Leadership	2.33
Adult Partners	4.00

### IV. ENGAGEMENT

2.13

Planning	3.00
Choice	3.00
Reflection	1.50
Connections	1.00

### V. STEM Skill Building

1.13

Scientific Reasoning	1.40
Observation and Measurement	1.00
Representation	1.00

# Detailed Report

## I. SAFE ENVIRONMENT

### Score Set 1

#### Emotional Safety **2.00**

1	Positive emotional climate	3.00
2	Lack of bias	1.00

#### Healthy Environment **5.00**

1	Free of health and safety hazards	5.00
2	Clean and sanitary	5.00
3	Adequate ventilation and lighting	5.00
4	Comfortable temperature	5.00

#### Emergency Preparedness **4.00**

1	Posted emergency procedures	3.00
2	Accessible fire extinguisher	3.00
3	Visible first-aid kit	5.00
4	Appropriate safety equipment	X
5	Supervised indoor entrances	5.00
6	Supervised access to outdoors	X

#### Accommodating Environment **5.00**

1	Sufficient Space	5.00
2	Suitable Space	5.00
3	Enough comfortable furniture	5.00
4	Flexible physical environment	5.00

#### Nourishment **4.33**

1	Available drinking water	5.00
2	Plentiful food and drink	5.00
3	Nutritious food and drink	3.00

## II. SUPPORTIVE ENVIRONMENT

### Score Set 1

#### Warm Welcome 5.00

1	Youth greeted	5.00
2	Staff warm and respectful	5.00
3	Positive staff body language	5.00

#### Session Flow 4.20

1	Starts and ends on time	5.00
2	Materials ready	5.00
3	Sufficient materials	3.00
4	Explains activities clearly	5.00
5	Appropriate time for activities	3.00

#### Active Engagement 4.50

1	Youth engage with materials or ideas	5.00
2	Youth talk about activities	5.00
3	(Y) Balance concrete and abstract	3.00
4	(Y) Tangible products or performances	5.00

#### Staff support youth in Skill-Building 3.57

1	Learning focus linked to activity	5.00
2	Staff encourages youth to try skills	5.00
3	Staff models skills	1.00
4	Staff breaks down tasks	5.00
5	Support for struggling youth	5.00
6	(S) Staff attribute STEM success to effort	3.00
7	(S) Staff encourage youth dialogue is present	1.00

#### Encouragement 4.50

1	Staff uses non-evaluative language	5.00
2	Staff asks open-ended questions	3.00
3	(Y) Staff actively involved	5.00
4	(S) Staff encourage creativity	5.00

## III. INTERACTION

### Score Set 1

#### **Belonging** **3.50**

1	Opportunities for youth to get to know each other	5.00
2	Inclusive relationships	3.00
3	Youth identify with program	5.00
4	(Y) Public acknowledgement of achievements	1.00

#### **Collaboration** **5.00**

1	(Y) Opportunities to work cooperatively	5.00
2	(Y) Interdependent roles	5.00
3	(Y) Shared goals	5.00

#### **Leadership** **2.33**

1	(Y) Practice group process skills	3.00
2	(Y) Mentoring opportunities	1.00
3	(Y) All youth lead group	3.00

#### **Adult Partners** **4.00**

1	(Y) Staff shares control with youth	5.00
2	(Y) Expectations explained	3.00

## IV. ENGAGEMENT

### Score Set 1

#### **Planning 3.00**

1	(Y) Opportunities to make plans	3.00
2	(Y) Multiple planning strategies used	3.00
3	(S) Staff encourage program goal setting	1.00
4	(S) Preliminary design opportunities	5.00

#### **Choice 3.00**

1	(Y) Content alternatives	1.00
2	(Y) Process alternatives	5.00

#### **Reflection 1.50**

1	Intentional reflection	1.00
2	Multiple reflection strategies	1.00
3	Structured opportunities to provide feedback	1.00
4	(Y) Structured opportunities to present to the group	3.00

#### **Connections 1.00**

1	(S) Staff connect activities with prior knowledge	1.00
2	(S) Staff connect activities to societal/ethical issues	1.00
3	(S) Staff connect activities to career prep	1.00
4	(S) Staff connect STEM concepts	1.00



## V. STEM Skill Building

### Score Set 1

#### Scientific Reasoning 1.40

1	(S) Staff support youth in identifying a guiding question	1.00
2	(S) Staff support scientific method or STEM design process	3.00
3	(S) Staff ask youth to make predictions, conjectures or hypothesis	1.00
4	(S) Staff support youth in using a simulation, experiment or model	1.00
5	(S) Staff support youth in analyzing data	1.00

#### Observation and Measurement 1.00

1	(S) Staff support youth in collecting data/measurements	1.00
2	(S) Staff support youth in recording data/observations	1.00
3	(S) Staff support youth in using tools	1.00
4	(S) Staff highlight value of precision and accuracy	1.00

#### Representation 1.00

1	(S) Staff model use of STEM vocabulary	1.00
2	(S) Staff encourage youth in use of STEM vocabulary	1.00
3	(S) Staff support youth in using classification/abstraction	1.00
4	(S) Staff support youth in conveying STEM concepts through symbols/models	1.00

## VI. STAFF INTERVIEW

### Score Set 1

#### **Program Preparation** **4.67**

1	(S) Staff create lesson plans	5.00
2	(S) Staff identifies instructional goals	5.00
3	(S) Staff links STEM to school-day content	3.00
4	(S) Staff have knowledge of youth accomplishments	5.00
5	(S) Safety polices related to STEM are enforced	5.00
6	(S) Staff expose youth to people/places using STEM	5.00

#### **Project-Based** **1.00**

1	(S) STEM activity is connected to multi-session project	1.00
2	(S) Youth participate in multi-session project	1.00

# Supporting Evidence/Anecdotes

## I. SAFE ENVIRONMENT

### Emotional Safety

#### 1 Positive emotional climate

All staff interacted positively with youth, and were responsive to youth who were feeling sad or upset. On several occasions youth told other youth to shut-up. Staff usually reminded youth that this was not OK and sometimes youth told other youth not to use "foul language."

#### 2 Lack of bias

There was a concern that a youth member brought to a staff member about an interaction he had with a friend that concerned the use of "gay". Staff were talking privately with the youth about his concern. A youth at one of the tables said, " This game is gay.", which was apparently not heard by staff and so was not addressed. In the STEM activity the youth were asked to get together in groups of 2 - 4 members. One youth was vocal on several occasions and said, " I'm not being a partner with him." I did not hear any direct discussion with the youth about this topic. The youth she did not want to partner with asked, " Do I have to be in a group?" and he was told yes. After groups were formed, the boy who had asked and the girl who had said she would not partner with him, were allowed to work by themselves.

### Healthy Environment

#### 1 Free of health and safety hazards

There were no health or safety hazards observed.

#### 2 Clean and sanitary

The program space was clean and sanitary,

#### 3 Adequate ventilation and lighting

Ventilation and lighting were both adequate and there were no complaints from the youth.

#### 4 Comfortable temperature

The temperature appears comfortable for youth and there were no complaints from the youth about the temperature.

### Emergency Preparedness

#### 1 Posted emergency procedures

Emergency procedures are kept in a binder in the program office.

#### 2 Accessible fire extinguisher

There was a visible, accessible, and charged fire extinguisher in the hallway.

#### 3 Visible first-aid kit

There was a program first-aid kit that was brought to the library where all youth first gathered and the STEM activity session was held.

#### 4 Appropriate safety equipment

There were no activities observed that required special safety equipment.

## **5 Supervised indoor entrances**

All school doors are locked during the program hours. A staff member opens door for youth when it is time to leave.

## **6 Supervised access to outdoors**

No outside space was used during the visit.

# **Accommodating Environment**

## **1 Sufficient Space**

There was ample space for youth and staff for all program sessions.

## **2 Suitable Space**

The spaces were suitable for the program sessions. The library was used for Check-in and Power Hour activities. A classroom was used for the art session. The gym is used for Triple Play Activity, and Dinner was served in the cafeteria.

## **3 Enough comfortable furniture**

There was enough furniture for the youth and staff present at all program offering and the youth appeared to be comfortable.

## **4 Flexible physical environment**

Tables and chairs can be moved if needed.

# **Nourishment**

## **1 Available drinking water**

The program makes available bottled water.

## **2 Plentiful food and drink**

There was plenty of food and drink available for all youth.

## **3 Nutritious food and drink**

The program served nutritious food. Dinner included: Ham, mustaccioli, green beans, rolls, capri sun juice and milk. There were cupcakes as a special treat for "Friendsgiving." A few children were observed drinking soda and/or eating chips during the check-in time at the beginning of the program.

# **II. SUPPORTIVE ENVIRONMENT**

## **Warm Welcome**

### **1 Youth greeted**

Youth were greeted individually as they entered the program space. There was a welcome to all youth at the beginning of the program session. " Welcome to our Friendsgiving." The staff member also shared with youth the activities that were planned for the day.

### **2 Staff warm and respectful**

All staff spoke warmly and respectfully to all youth. The staff seemed to enjoy being with the youth.

### **3 Positive staff body language**

Staff members frequently smiled and their body language reflected acceptance, approval, and that the staff were available to support the youth. Staff members looked youth in the eye when talking with them.

## **Session Flow**

### **1 Starts and ends on time**

The staff member welcomed youth at 3:05 and the program began at 3:00. Youth were involved in program activities until they were picked up to go home.

### **2 Materials ready**

Materials were read to begin the observed STEM and Art activities.

### **3 Sufficient materials**

There were enough materials available for all youth in the STEM and Art sessions. There were 4 games brought out for 40 youth during the Power Hour session. If all the youth had wanted to play games there were not enough games made available. Many youth appeared to prefer socializing with each other instead of playing a game.

### **4 Explains activities clearly**

A staff member explained how to play charades and answered youth's questions. A staff member explained clearly the STEM activity and answered questions as youth asked them.

### **5 Appropriate time for activities**

One of the STEM activity groups felt rushed to complete their activity. When youth were finished with the activity there were not alternative activities to engage youth who were finished. In the art session a couple of youth were not finished with the bracelets.

## **Active Engagement**

### **1 Youth engage with materials or ideas**

Youth were engaged with materials or ideas in all program sessions. For examples, the game of charades, building a bridge, stringing beads to make a bracelet/drawing all engaged youth.

### **2 Youth talk about activities**

The STEM activity was designed to have youth work in groups of 2-4 to plan, build and test a bridge that they build together. The staff member stopped and talked with each group and individually with the two youth members who worked on building the bridge on their own.

### **3 (Y) Balance concrete and abstract**

Youth were primarily engaged in concrete activities, i.e., building a bridge and making a bracelet. Did not observe a conversation about the principles involved in making a bridge sturdy or patterns that may be represented in a bracelet.

### **4 (Y) Tangible products or performances**

The staff person "tested" each bridge to see if it was sturdy enough to hold at least 5 blocks. Some children from other groups came to watch the "test" of another group. There was not a presentation of each bridge to the other members of the group. The staff person did take a picture of each bridge that could serve to facilitate a discussion in the future about what worked for the group and what did not work in building the bridge. The bracelets were not formally presented to other members of the group but were seen by the staff member when she tied the string of beads into a bracelet on the youth's arm.

## **Staff support youth in Skill-Building**

## 1 Learning focus linked to activity

The youth in the STEM activity told the youth that they would be building a bridge today out of the materials that were available i.e., marshmallows, toothpicks and popsicles sticks. The bridge needed to be: - off the ground - stand alone - hold at least 5 blocks The activity provided the youth the opportunity to plan the bridge, build the bridge, and test the bridge. This information was also written on the white board in the front of the group.

## 2 Staff encourages youth to try skills

This appeared to be an activity that was new to the youth. All youth were encouraged to sit down at the table and stay on task. The staff person walked around the room asking each group, "What's your strategy?" If the bridge the youth were building was no standing or was no very sturdy, the staff person asked, "What's your strategy to try to get it to stand up?"

## 3 Staff models skills

Did not observe the staff person model any building strategies.

## 4 Staff breaks down tasks

The staff person broke the the steps for the bridge activity into three steps. - "First your going to plan your bridge, draw what you want your bridge to look like." = "Then your going to build your bridge." - "Then we're going to test the bridge to see if it can hold 5 blocks.

## 5 Support for struggling youth

The staff member met individually with the two youth who refused to work with a partner to encourage them and assisted them when one of them became discouraged by their progress.

## 6 (S) Staff attribute STEM success to effort

Did not observe staff attribute success or failure of the bridges the youth built in the STEM activity to either ability or effort/attention/persistence.

## 7 (S) Staff *Ã¢â€œyouth dialogue is present*

Did not observe the staff member engage in substantive back and forth dialogue about the building of the bridges with two or more youth.

## Encouragement

### 1 Staff uses non-evaluative language

The staff member told one of the youth who shared what she was doing to build the bridge, "that's a good idea." Once the staff person used non-evaluative language when she told the group, "Your bridge is sturdy enough to hold more than the five blocks."

### 2 Staff asks open-ended questions

Most questions from staff were related to asking the youth to repeat rules/expectations or answer a question that required a specific answer. For example, "What programs do we do on Thursday?" During the STEM session that staff person asked at least one open-ended question. For example, "What's your strategy to try to get it to stand up?"

### 3 (Y) Staff actively involved

Staff were actively involved with youth in all observed sessions.

### 4 (S) Staff encourage creativity

Youth were encouraged to design their own bracelets. The criteria on which the youth were encouraged to assess the success of their bridges included: Creativity, Strength, and Structure

## III. INTERACTION

### Belonging

#### 1 Opportunities for youth to get to know each other

The staff provided two opportunities designed to help youth to get to know each other. All youth who were brought as a friend by a member of the group were asked to introduce themselves and they were welcomed by the group. During dinner youth were invited to share "What they were thankful for."

#### 2 Inclusive relationships

There was one child who seemed to be excluded by youth. One youth was vocal on several occasions and said, "I'm not being a partner with him." I did not hear any direct discussion with the youth about this comment. This child ended up working by himself on the STEM activity. Although not during the STEM activity, in other observation the staff gave this youth a job that included the youth in the activities. During the charades game, this child was asked to keep score. Later this child was asked to be the "photographer" and came around and took pictures of all program sessions.

#### 3 Youth identify with program

The youth seemed to enjoy being in the program and some of what youth were thankful for included "club friends and staff". When some youth told others to "shut up", a couple of youth reminded these youth that this was foul language and not allowed.

#### 4 (Y) Public acknowledgement of achievements

I was not informed of opportunities to acknowledge the achievements, work, or contributions of youth.

### Collaboration

#### 1 (Y) Opportunities to work cooperatively

There was an opportunity for all youth in the STEM activity to work cooperatively.

#### 2 (Y) Interdependent roles

The youth in the groups were working together to make a bridge that was off the ground, could stand alone, and could hold at least five blocks.

#### 3 (Y) Shared goals

The youth in the groups were working together to achieve the common goal of making a bridge that was off the ground, could stand alone, and could hold at least five blocks

### Leadership

#### 1 (Y) Practice group process skills

All youth had the opportunity to practice group processing skills as they participated in a group in the STEM activity.

#### 2 (Y) Mentoring opportunities

Did not observe staff providing opportunities for youth to mentor an individual youth.

#### 3 (Y) All youth lead group

One youth was asked to explain and demonstrate how to play charades. Some youth had the opportunity to act out a charade word for others to guess.

### Adult Partners

## 1 (Y) Staff shares control with youth

Staff share the control of most activities with youth. The staff provided ongoing supervision, support, and facilitation as needed.

## 2 (Y) Expectations explained

Sometimes the staff provided a reason for behavioral expectations. For example, "share the floor" was explained by saying, We share the floor, because we want to hear what others have to say, and it is rude to speak when another person is speaking. Staff asked the youth to list the rules which youth were able to do, but the reason for the rules were not discussed. Rules include: No running around, no profanity, no bullying, and don't interrupt the speaker,

# IV. ENGAGEMENT

## Planning

### 1 (Y) Opportunities to make plans

The youth in the STEM activity were asked to begin the activity by making a plan and drawing a design of their bridge.

### 2 (Y) Multiple planning strategies used

The youth in the STEM activity were asked to begin the activity by making a plan and drawing a design of their bridge.

### 3 (S) Staff encourage program goal setting

This was not observed.

### 4 (S) Preliminary design opportunities

The "plan" for the bridge could be considered a preliminary design of the bridge.

## Choice

### 1 (Y) Content alternatives

All youth were to create a bridge that was off the ground, could stand alone, and could hold at least 5 blocks.

### 2 (Y) Process alternatives

All youth could decide how they wanted to use the materials provided to build the bridge.

## Reflection

### 1 Intentional reflection

This was not observed.

### 2 Multiple reflection strategies

This was not observed.

### 3 Structured opportunities to provide feedback

This was not observed.

### 4 (Y) Structured opportunities to present to the group



There was not a structured opportunity for youth to present the bridges built during the STEM session but youth were provided an opportunity during dinner to share something for which they were thankful.

## Connections

### 1 (S) Staff connect activities with prior knowledge

Did not observe staff help youth connect the bridge activity to personal experiences or previous knowledge related to the STEM activity.

### 2 (S) Staff connect activities to societal/ethical issues

This was not observed.

### 3 (S) Staff connect activities to career prep

This was not observed.

### 4 (S) Staff connect STEM concepts

This was not observed.

## V. STEM Skill Building

### Scientific Reasoning

#### 1 (S) Staff support youth in identifying a guiding question

This was not observed.

#### 2 (S) Staff support scientific method or STEM design process

The STEM activity was set up to use some of the steps in the scientific method i.e., design, implement, test. What was missing was any analysis after the "test" regarding why the bridge design the youth used held or didn't hold at least 5 blocks, held more than 5 block, broke up after more than 10 blocks were added, etc.

#### 3 (S) Staff ask youth to make predictions, conjectures or hypothesis

This was not observed.

#### 4 (S) Staff support youth in using a simulation, experiment or model

This was not observed.

#### 5 (S) Staff support youth in analyzing data

This was not observed.

### Observation and Measurement

#### 1 (S) Staff support youth in collecting data/measurements

This was not observed.

#### 2 (S) Staff support youth in recording data/observations

This was not observed.

#### 3 (S) Staff support youth in using tools

This was not observed.

#### **4 (S) Staff highlight value of precision and accuracy**

This was not observed.

### **Representation**

#### **1 (S) Staff model use of STEM vocabulary**

This was not observed.

#### **2 (S) Staff encourage youth in use of STEM vocabulary**

This was not observed.

#### **3 (S) Staff support youth in using classification/abstraction**

This was not observed.

#### **4 (S) Staff support youth in conveying STEM concepts through symbols/models**

This was not observed.

## **VI. STAFF INTERVIEW**

### **Program Preparation**

#### **1 (S) Staff create lesson plans**

The staff person stated the lesson plans are created for all STEM activities.

#### **2 (S) Staff identifies instructional goals**

The staff person stated the lesson plans included instructional goals for all STEM activities.

#### **3 (S) Staff links STEM to school-day content**

The staff person stated that about 50% of the STEM activities were linked to the content of the school day.

#### **4 (S) Staff have knowledge of youth accomplishments**

The staff person stated the staff are aware of all youth academic challenges and achievements.

#### **5 (S) Safety policies related to STEM are enforced**

The staff person stated that the program has safety policies and procedures related to STEM that are consistently followed.

#### **6 (S) Staff expose youth to people/places using STEM**

The staff person stated that the program includes field trips/guest speakers once or twice a month.

### **Project-Based**

#### **1 (S) STEM activity is connected to multi-session project**

The staff person stated that the STEM activities are individual activities completed in one session.

## **2 (S) Youth participate in multi-session project**

The staff person stated that the STEM activities are individual activities completed in one session.