

Amazing Science Program Evaluation  
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This report is presented in several parts. The first part describes the history of the development of the summer studies units and the methodology employed for their evaluation. The second part describes results of pre-tests and post-tests of knowledge for the Energy and Environment units. The third part describes the comments made by the implementers of the units both as to their strengths and their needs for further development. The fourth describes the comments that students made about the program. The fifth includes observations of the evaluator. The final section offers a summary and describes recommendations and next steps.

## **I. History and Methodology**

The development of the units of study for the summer studies program began formally in April of 2010. The Summer Studies Committee, as it was constituted at that time, met several times to determine such logistics as location, timing, transportation, ages of students served, funding and curriculum. Decisions were made quickly about many of the logistical arrangements necessary to host the program, and then the curriculum became the major topic of focus. The Committee sought a “cutting edge curriculum, utilizing real world applications of math and science as well as classroom and laboratory activities.” The Committee determined that the development of such a curriculum would require professionals in education and mathematics and science. Accordingly, the Committee developed job descriptions and applications. These were distributed widely through the broader Mathematics and Science Education Center collaboration. Applications were received and considered, and contracts were established with developers for four curricula. The curricula were developed, revised, and formatted in the following year. The first Summer Studies program, implemented in 2011, included modules in the topics of Aviation, Energy, Forensics, and Health.

For the purposes of this paper, the professionals vital to the conception and implementation of the Amazing Science program will be known as the Summer Studies Team. The Summer Studies Team will refer to the Faculty Coordinators, the Teacher Facilitator, and the Student Leaders. Like the year before it, the Summer Studies Team worked throughout the spring of 2012 to develop curricula for the summer Amazing Science Program. The Summer Studies Team was aided by the feedback and practical experience of the 2011 program, and used this knowledge to make logistical changes to improve the flow of the program. The curricula finalized prior the implementation of the second Summer Studies program included Energy and Environment. These were the units piloted at the After-School Program in the spring of 2012. The units were pilot tested at two schools: Jefferson and Simmons. All units were implemented with 6<sup>th</sup> through 8<sup>th</sup> graders only. The full units were not implemented in the pilot tests, although many

modules were. The Amazing Science program was delivered on the campus of Aurora University on Mondays through Thursdays, nine to noon from June 11 to July 19. The program generally included content delivery, hands-on/experiential activities, a break for a snack, and then another set of content and additional experiential activities. The units were delivered in a manner consistent with the ways in which the original curricula were designed, although minor modifications were made at times.

The evaluation of the process and outcomes associated with this implementation was conducted in three parts. The first part involved delivery of pre-tests and post-tests of knowledge. The second part involved feedback forms completed by members of the Summer Studies Team to identify strengths of each unit and areas for future development. The third part took the form of observations of implementation by the evaluator along with focus groups with students involved in the program.

## II. Pre-test and Post-tests

The pre-tests and post-test are criterion-referenced tests developed by the evaluator based on the unit contents. The tests that were written for the pilot program were checked with the original authors of the curricula prior to being utilized. These tests were later revised based on feedback from the authors in an attempt to ensure that the tests accurately reflected the content that the students would be learning. The Student Leaders administered the pre-tests on the first day of the unit of study, and the post-tests were administered on the final day. The pre- and post-tests were collected and scored by the evaluator. The results of this data is presented in the following graph **[change to “table”]**:

Table I: Pretest and Posttest Means and Standard Deviations

	Pretest Mean	Standard Deviation	Std. Error Mean
Energy pretest	6.7027	2.73724	.45000
Energy posttest	9.5676	2.53356	.41651
Environment pretest	6.3704	2.32293	.44705
Environment posttest	8.0741	2.44833	.47118

The results of the paired samples t-tests indicate a statistically significant degree of improvement in knowledge between pre-tests and post-tests. . As indicated in Figure 1, the mean for the energy unit tests improved from 6.7027, (2.74) to 9.57676, (2.53) during the

course of the educational program. This change is measured as statistically significant ( $t(36) = 5.586, p < .01$ ).

In addition, the mean test score for the environment test improved during the course of the educational program. The pre-test mean was measured at 6.37, (2.32) and the post-test mean was measured at 8.07, (2.45). This change is also statistically significant ( $t(26) = 3.715, p = .001$ ).

### **III. Comments from Aurora University Faculty Coordinators**

The Faculty Coordinators from Aurora University who developed the curriculum content and supervised the overall functioning of the program were interviewed by this evaluator following its completion. The Faculty Coordinators were asked to consider which modules went well, how the members of the Summer Studies Team communicated with one another, and what changes could be made to improve future generations of the Amazing Science Program.

#### **1. Positive Comments:**

Faculty Coordinators identified several improvements in this summer's program as opposed to the program from last summer, crediting last year's experience as an important learning opportunity. Changes made based on the way the program ran last year, including putting the classrooms in a centralized location and utilizing two classrooms instead of three, significantly simplified the way the program ran this year. Another important change included the fact that the Faculty Coordinators worked more closely with the referring schools to ensure that appropriate students were being recruited to the program. The Faculty Coordinators note that enrolling students who have an interest in science and math improved the way that the program ran, as they were engaged and interested in the material. The Faculty Coordinators reported that they believed that the members of the Summer Studies team communicated and worked well with one another. On a related topic, the Faculty Coordinators were pleased with the team of Student Leaders this year and felt that they did a "great" job implementing the content and managing the classroom. Overall, the Faculty Coordinators felt that the program was very successful and reported that they would be interested in participating again next year.

#### **2. Constructive Comments**

Faculty Coordinators continue to learn from their experiences with this young program and were able to provide practical feedback that might help improve its effectiveness in future summers. One suggestion for improving the functioning of the program would be to not hold the program during the week of July 4<sup>th</sup>. Faculty Coordinators found this week to be challenging, as many students were absent and students who did attend were “antsy”. It was proposed that the holiday week could function as a natural break between units of study. Another issue identified was the issue of ensuring regular attendance. Faculty Coordinators noted that it was not uncommon for parents to register their child and then not send them, or not send them regularly. This creates a problem in that children who do want to attend program are unable to do so because the available spots are taken by children who have been registered but don’t regularly attend, and the amount/quality of knowledge learned in program cannot truly be accurately assessed if children are not regular participants in the program. [Finally, it was noted that coordinating the program was a large undertaking and that the Faculty Coordinators felt that they could have further improved the way it functioned if they had more time/more help. For instance, one Faculty Coordinator would have liked to utilize time “on the floor” with the Student Leaders to help them sharpen their teaching skills, but was unable to do so because of having to tend to other needs of the program. ] **I recommend cutting the bracketed section. See point D below for clarification of these ideas.**

### 3. Summary of Comments

Comments provided by the Faculty Coordinators speak to their positive experience with the program and their interest in continuing to see it develop and serve as a resource to children in the Aurora community. The Faculty Coordinators appear to be committed to this project and demonstrate valuable expertise.

### 4. Recommendations

A.) It is recommended that Faculty Coordinators continue to work with referring schools to recruit students that are appropriate for the program.

B.) Faculty Coordinators should also work with referring schools to establish ways to improve attendance of students. For example, perhaps referring schools could impress the importance of regular attendance upon parents before they register their child, or the Coordinators could create a document that informs parents of the expectation for regular attendance.

C.) Faculty Coordinators should meet with other Summer Studies Team Members to discuss the possibility of suspending program for the holiday week of July 4<sup>th</sup>.

D.) The Summer Studies Team should consider utilizing funds to hire an additional staff member who could help assist with the development and daily facilitation of

the program. This could free up the Coordinators to perhaps make more meaningful contributions to the program, specifically, to assist with the developing pedagogical skills of the student leaders. **Recommended change to D. “The Summer Studies Team could consider developing further the role of the Teacher Facilitator to provide more “on the ground” mentoring to the Student Leaders teaching in the program. This mentoring could take the form of classroom observations and evaluations of teaching and discussions with individual student leaders about teaching methods and strategies for improvement.”**

#### **IV. Comments of Teacher Facilitator**

The Teacher Facilitator who participated in the Amazing Science this summer normally works as a science teacher at a middle school in Aurora. She played a small part in the summer program and contributed in a much larger way during the 2012 spring MYTIME program at Simmons Middle School. Comments on the MYTIME program can be found as an appendix to this report. In regards to the Amazing Science program, the Teacher provided a training to the Student Leaders about classroom management, stressing the importance of setting rules and expectations. This evaluator interviewed the Teacher Facilitator about her experience with the Amazing Science Summer Program program.

##### **1. Positive Comments**

The Teacher reported that she felt that the curriculum for the Amazing Science program was very good, specifically mentioning the “Soaring Straws” and “Solar Cars” experiments. She also reported that her communication with the Aurora University Faculty Coordinators was “professional” and she felt as though “they were willing to work with me.”

##### **2. Constructive Comments**

Because of her limited involvement in the Amazing Science program, the Teacher did not have any constructive comments to share.

##### **3. Summary of Comments**

The Teacher did not have much feedback to share in regards to the Amazing Science program. She played a larger role in the spring MYTIME program, and became familiar with the Amazing Science curriculum in that way, as she piloted much of the Amazing Science experiments with the MYTIME students.

##### **4. Recommendations**

A) The Summer Studies Team should consider utilizing the Teacher again next year to train Student Leaders in areas of classroom management of middle school students. As the Teacher Facilitator has much experience in this area, her techniques for responding to behavioral disruptions could be very valuable to the less experienced Student Leaders.

## **V. Comments of the Student Leaders**

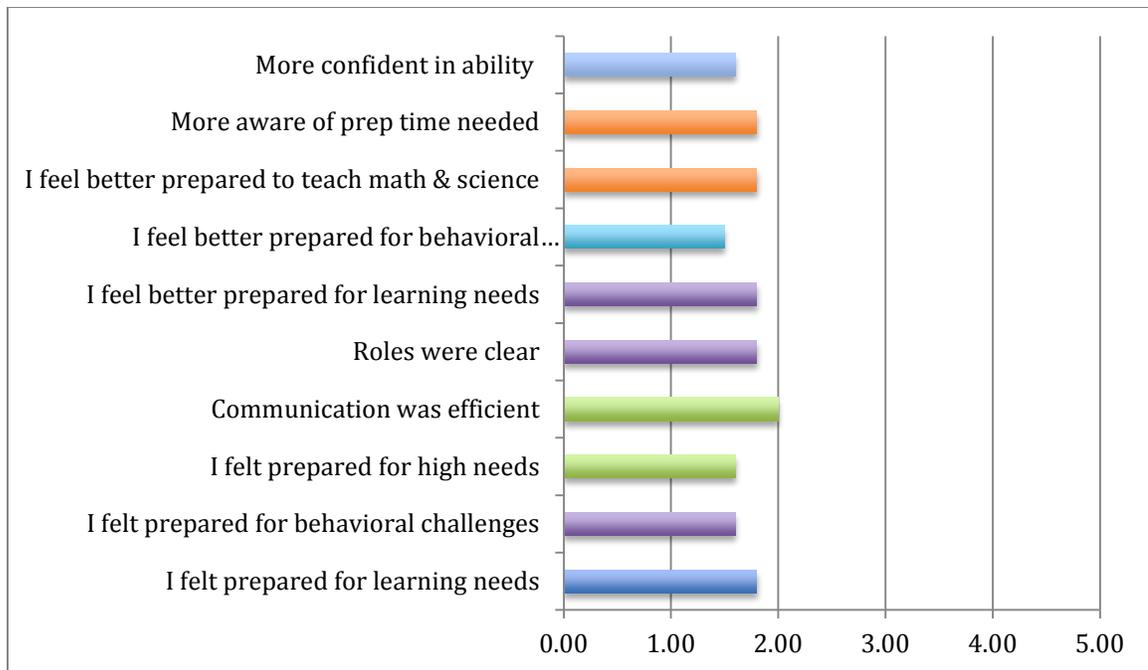
The Amazing Science Summer Program utilized six undergraduate students currently enrolled at Aurora University to serve as Student Leaders. Their role was to implement the curriculum and manage the classroom activities. Each classroom was assigned three Student Leaders that worked together consistently throughout the summer.

This writer was able to evaluate the Student Leaders' experience in multiple ways, including direct observation, written survey instruments, the daily activity log, and personal interviews

### **1. Student Leader Survey**

Each Student Leader completed a written survey intended to gauge their personal experience of the program. The following graph illustrates the mean response of the six Student Leaders. The individual results to this questionnaire can be found in Appendix C of this report.

- 1: Strongly agree
- 2: Agree
- 3: Neither agree nor disagree
- 4: Disagree
- 5: Strongly disagree



## 2. Written Comments from Student Leader Survey

The survey instrument also asked Student Leaders to identify the most successful and least successful parts of program were, what they thought could be done to improve the program's effectiveness, and their overall impression of if the program improved the students knowledge base.

Most successful aspects of program according to the Student Leaders varied. Some Student Leaders named specific activities (Solar Cars received two votes, Bottle Ecosystem received two votes, and the entire Energy module received two votes). Other student leaders opined that the best parts of program were less specific, such as "watching the kids make friends and learn", and "all of the experiments and hands on activities."

Least successful aspects of program also differed, according to the Student Leaders. Again, some listed specific activities (lectures were reported once, environment unit was reported once, and "chemical models" were reported once). Others listed some practical issues that occurred during the program; one stated that the Student Leaders did not have sufficient time to thoroughly learn the material in the environment model, and one noted that they did not have enough planning time at the end of each day.

Suggestions for improving the program included affording Student Leaders a longer training period to better learn the material, to shorten the duration of program by a week or two and condense similar activities, to add more videos instead of lecture, and allow for more planning time for the Leaders at the end of the day. One Student Leader stated “I would change nothing, the program runs wonderfully.”

All six of the Student Leaders stated that they believed that the students learned from attending the Amazing Science program. Five of the six stated that they would be interested in returning as Student Leaders next summer; the sixth stated that they would consider it.

### 3. Personal Interviews with Student Leaders

The evaluator spoke with each Student Leader while observing the Amazing Science program on various occasions. The face-to-face interviews with the Student Leaders seemed to echo what they reported in their written surveys. Overall, the Student Leaders were satisfied with the program and felt that it was beneficial and fun to the enrolled students. Several Student Leaders were able to provide practical feedback based on their personal experience, which could be helpful to future generations of the program. For instance, several Student Leaders pointed out that some of the material that was used this year was also taught last year, and that students who repeat the program were less engaged in the repeated material. Other suggestions included being aware of other potential field trip opportunities, such as the Children’s Museum, and making sure that all of the supplies are available and functional.

### 4. Summary of Comments

Overall, the comments of the Student Leaders are positive and indicate that the Student Leaders had a good experience in the program. The constructive comments that they make appear aimed at improving the quality of the program for future students. Based on their practical experience in the program, the Student Leaders make several suggestions that could be helpful to the Coordinators and Summer Studies Team in preparation of next years’ program.

### 5. Recommendations

A) While planning for next years’ program, the Summer Studies Team should reassess the training time allotted for Student Leaders. This year, one week was allotted. Several Student Leaders commented that they would have benefitted from additional training and planning time.

B) The Faculty Coordinators should consider creating new curriculum for the program, or perhaps rotating the created units every three years to prevent second and third year students from repeating the same material.

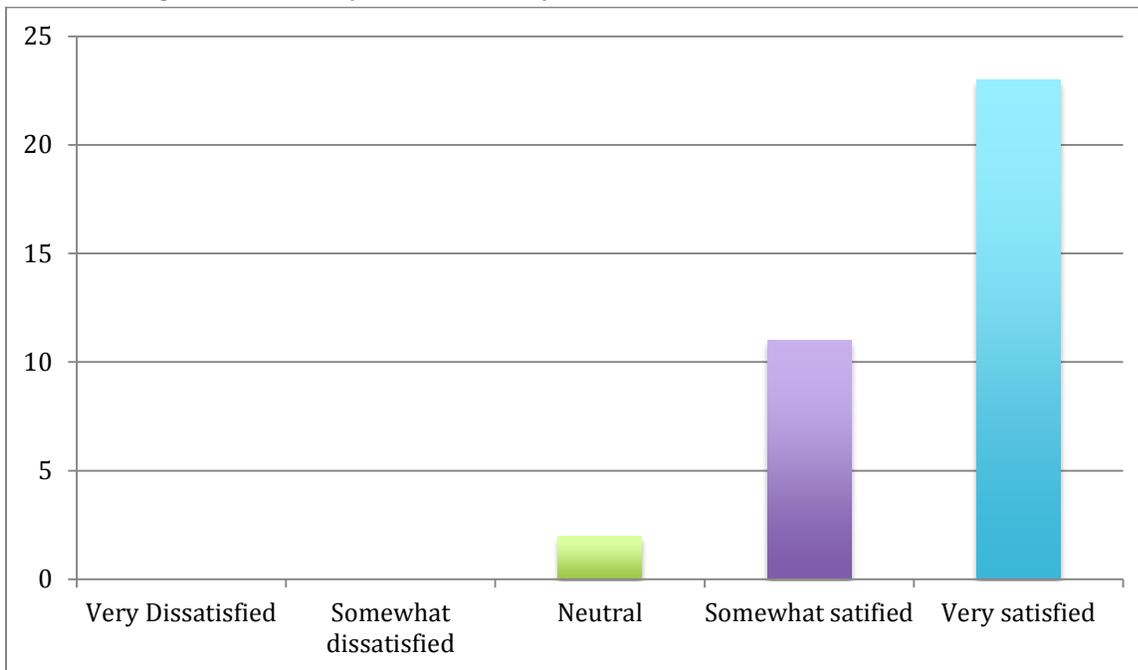
## VI. Comments of the Enrolled Students

The sixth, seventh, and eighth grade students enrolled in the Amazing Science Summer Program program were surveyed at the conclusion of the program via a written survey instrument. Several students were personally interviewed by this evaluator during observational site visits. The results of the evaluation are broken into units of study.

### Environmental Studies Unit

The students were asked to rate their overall satisfaction with the Environmental Studies unit. The results of that question are illustrated on the chart below. Specific comments regarding the Environmental Studies unit are as follows.

*Student Responses to Satisfaction Level of Environmental Studies*



### 1. Positive Comments

Students were asked what they liked best about the program. Students answered in various ways, from naming specific activities to making more general comments. Fourteen students wrote that they liked “the experiments” best, with the “ecosystem” being the most cited experiment with nine comments. Five students

commented that they liked “making friends/hanging out with friends” best. Three noted they liked making posters, while two specified that they liked playing games. Several students wrote comments about liking their Student Leaders.

## 2. Constructive Comments

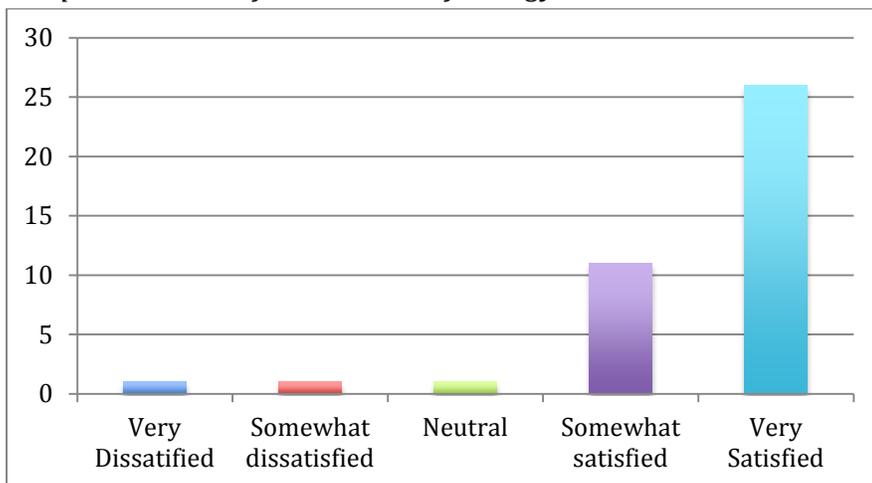
The most common response to the question “What did you like least about Environmental Studies?” was “nothing” with ten votes. Four students wrote that they didn’t like being outside for activities. Four students commented that they did not like the “garbage/waste experiment”. Three students wrote that they did not like the snacks. Two wrote that they did not like lecture/taking notes.

Students were also asked what they would change if they were in charge of the Environmental Studies unit. Most students left this answer blank or wrote “nothing” (four). Three wrote that they would make the program longer/have program on Fridays, while one wrote “make it shorter”. Three wrote that they would like to go outside more/play more games outside.

## Energy Unit

The students were asked to rate their overall satisfaction with the Energy unit. The results of that question are illustrated on the chart below. Specific comments regarding the Energy unit are as follows.

*Student Responses to Satisfaction Level of Energy Unit*



## 1. Positive Comments

Many students indicated that they enjoyed the experiments/lab stations (13 comments), with the solar powered cars being most often noted with eleven votes. Another popular activity was the circuits, with 4 mentions. Six students commented that they enjoyed the field trip to the farm. Two students noted that they liked

meeting people/making friends. Again, several students wrote about liking their Student Leaders or wrote personal notes thanking their Student Leaders.

## 2. Constructive Comments

The most common response to the question “what did you like least?” was some version of homework/notes/reflection papers with fourteen comments. Second most common response was “nothing” with eight comments. Some students mentioned specific activities, such as Bouncy Balls experiment (1 comment), and the “energy enigma game” (1 comment).

When asked what they would change, most students answered “nothing” (seven). Six students responded that they would prefer different snacks. Three students commented that they would like to go outside more often, while three suggested that the day be lengthened. Two students noted that they would like the two classrooms to come together more often so that all the students could get to know one another. Finally, one student wrote “this is exactly the same as last year.”

## 3. Summary of Comments from Energy and Environmental Studies Units

Reviewing the comments of the students, it appears that both units were well received by the students. The overwhelming majority of students reported that they were “somewhat satisfied” or “very satisfied” with their overall experience in the program, and several students reported secondary gains aside from increasing scientific knowledge, such as making new friends and having fun. Certain experiments were more successful/more popular with the students than others, which can be helpful information to coordinators when planning future programs. The student comments suggest that the program has met its objectives.

## 4. Recommendations

A) Coordinators and the Summer Studies Team should take the feedback from the students into consideration when creating future programs. Information about successful/unsuccessful activities, as well as more logistical input about time and snack selection, can be used to help improve the students experience and engagement.

## **VII. Observation**

The evaluator went to the program to conduct observations on two occasions, 6/21/12 and 7/12/12. The first observation was of an energy module and the second was of an environment module.

At each observation, the evaluator engaged in conversations with the students about what they liked, did not like, and recommended about the program. This section will be organized as two parts: the first is observations made, and the second is comments made by students.

### Energy

This writer evaluated the Energy Unit on 6/21/12. On this date, the session began with a brief lecture about different types of energy and directions about what the students would be working on for that day. The Student Leaders asked the students to predict the results of each experiment. After the lecture/discussion, the students broke into small groups and began conducting experiments at various stations throughout the classroom. Students learned from experiments such as “Sand Shake-Up”, a bouncy-ball exercise where they measure force and distance, and an experiment where they watched a bi-metal bar change shape in different temperatures. Students also learned how to make a battery out of an apple, which was a particularly exciting experiment for them. Students worked diligently while Student Leaders walked around the room, supervising and helping to clarify what the students were learning. Students appeared to be having fun as they worked. Several students volunteered to show me what they were working on and asked me to take pictures of their experiments.

### Environmental Studies

This writer evaluated the Environmental Studies unit on 7/12/12. On this day, the students appeared excited to build their Ecosystems in a two-liter soda pop bottle. Preliminary work had been done in the form of students creating posters to demonstrate various types of ecosystems. On this day, the students were tasked to create a living ecosystem filled with plants, water, snails, slugs, worms, and various other creatures. Student Leaders helped organize the process, which could have been quite chaotic, by calling student tables up individually to build their ecosystems. While one group of students was gathering their supplies, the rest of the students were expected to draw out their ecosystem design. Although students were enthusiastic about this activity, the classroom still felt orderly and in control.

On both days that this writer observed, students were asked to share their thoughts about the Amazing Science Summer Program. Comments derived from personal interviews with students are as follows.

### 1. Positive Comments

The most popular activities named by students, according to their interviews, were the Solar Cars and the Ecosystems. Students repeatedly stated that they liked the “hands on activities” and experiments. This evaluator heard the word “fun” multiple times from various students. When asked if students would want to come back to the Amazing Science Program next year, all of the students said “yes”. One eighth grader stated that she wished that she could do this program throughout high school. When asked why he liked the program so much, a seventh grader stated “you never have a day where you don’t want to come back here.” A sixth grader stated that Amazing Science Program is important because “it helps me because when I get away from school, I forget things and this program helps me remember.” A seventh grader summed up her experience at Amazing Science Program by saying “it’s a fun place where you learn about higher levels of science.”

### 2. Constructive Comments

The vast majority of students that this evaluator spoke to stated that they would change “nothing” about the program. Several stated that they did not like the writing or the worksheets. Several said they would like to make the day longer, some stated that they thought the day should start later. There were no consistent areas of complaints expressed by the students to this writer throughout the personal interviews.

### 3. Summary of Observation and Student Interviews

Based upon the evaluators’ observation and personal interviews with enrolled students, it appears that the Amazing Science program was successful in providing students a fun opportunity to learn more about science. Students appeared to genuinely enjoy this experience of conducting experiments and working with their peers. The program appeared to be well run, engaging, and challenging enough to increase the students’ knowledge.

### 4. Recommendations

- A) Coordinators and Summer Studies Team should review the comments made by enrolled students to make decisions about which experiments should be included in future programs.
- B) Coordinators can utilize comments made by enrolled students to make logistical changes to the program, if appropriate.

## VIII. Summary

The Amazing Summer Science program produced significant improvements in knowledge for both environmental and energy units. Students reported enjoying and learning from their experience, and Student Leaders reported that the experience was positive in preparing them as professional educators and that they would come back next year.

A few recommendations for future development were offered by the respondents. First, targeted recruitment seems to be an effective means for ensuring the most appropriate students are registered for this educational opportunity. However, attendance is a concern and should be made a focus with those communicating with parents about the program. Programming should probably be suspended the week of July 4. The most consistent recommendations to issue from the evaluation are to add curricular units (not to recycle units immediately but perhaps to develop additional materials that can be entered into circulation, so existing units are offered perhaps every four years) and to offer enhanced training and oversight for Student Leaders to continue to promote development of their professional capacities. The role of the Teacher Facilitator was valued and could profitably be retained.



## Appendix A: Enrollment Summary

### Energy Unit

#### *Gender:*

Males: 24

White/NonHispanic: 7

Hispanic/Latino: 8

African American: 4

Asian/Pacific: 5

Females: 24

White/NonHispanic: 3

Hispanic/Latina: 7

African American: 4

Asian/Pacific: 10

#### *Grade Levels:*

6<sup>th</sup> Grade: 25

Males: 15 Females: 10

7<sup>th</sup> Grade: 18

Males: 8 Females: 10

8<sup>th</sup> Grade: 5

Males: 1 Females: 4

#### *Referring Schools:*

Jewel: 5

Jefferson: 5

Fischer: 6

Washington: 3

Bednarcik: 3

East Aurora Magnet Academy: 2

Waldo: 0

Granger: 8

Simmons: 8

Still: 6

Herget: 3

Cowherd: 0



## **Environment Studies Unit**

### *Gender:*

Males: 19

White/NonHispanic: 5

Hispanic/Latino: 2

African American: 7

Asian/Pacific: 5

Females: 21

White/NonHispanic: 7

Hispanic/Latina: 3

African American: 3

Asian/Pacific: 8

### *Grade Levels:*

6<sup>th</sup> Grade: 23

Males: 12 Females: 11

7<sup>th</sup> Grade: 11

Males: 6 Females: 5

8<sup>th</sup> Grade: 6

Males: 1 Females: 5

### *Referring Schools:*

Jewel: 1

Jefferson: 3

Fischer: 5

Washington: 4

Bednarcik: 2

East Aurora Magnet Academy: 1

Waldo: 0

Granger: 9

Simmons: 2

Still: 8

Herget: 5

Cowherd: 0



## **Appendix B: Summary of MYTIME Pilot Program**

During the spring of 2012, the MYTIME afterschool program piloted the units of study that were later used in the Amazing Science Summer Program program. MYTIME programming was provided to middle school students at Jefferson and Simmons Middle Schools. The program was provided in collaboration with the Communities in Schools program.

Although the MYTIME program used a shorter time frame and therefore limited lecture and discussion, the activities and experiments conducted were the same. Furthermore, the Teacher Facilitator who implemented the MYTIME program later provided a training session to the Student Leaders of the Amazing Science Summer Program. For these reasons, this writer spoke with the Teacher Facilitator about her experience in an attempt to further evaluate the Amazing Science program.

This writer asked the Teacher Facilitator about what worked well, what worked less well, any changes she would make to the MYTIME program, and her overall perception and opinion of the program.

### **Positive Comments:**

The Teacher Facilitator felt that the curriculum utilized in the program was good and that it was adequate for the needs of the MYTIME program. She stated that the students seemed to respond well to some experiments, especially the Solar Cars and Soaring Straws. She stated that her communication with AU Faculty was “professional”. She expressed a generally positive opinion of the program and reported that she would be interested in participating in the MYTIME program again next spring.

### **Constructive Comments:**

The Teacher Facilitator made several constructive comments intended to improve the program for next year. She suggested that the Coordinators consider re-working the time of the program, as the time she taught the program coincided with a Girls program, resulted in her class being populated by all boys. This prevented girls from participating in the science related material. Secondly, she reported that many of the students in her class did not have any particular interest in science, and therefore were more difficult to engage. This evaluator suspects that the Teacher Facilitator had to manage more behavioral issues than the Student Leaders did in the Amazing Science program. Finally, the Teacher Facilitator reported that she felt that her role responsibilities shifted from her initial understanding of the job to the actual implementation of the program. She suggested that job descriptions be clearer from the onset of the program.

Summary:

The Teacher Facilitator played a vital role in the MYTIME program and contributed her classroom expertise to the Amazing Science Summer Program. Her feedback seems to come from a place of practical experience and a feeling of genuine commitment to educating students in the area of science.

Recommendations:

- A) Coordinators and CIS personnel should make a strategic plan to offer the science material at a time when all MYTIME students can participate in the lessons.
- B) CIS and MYTIME staff should develop a protocol for managing behavioral incidents, if one does not already exist.
- C) Job descriptions should be written in a concrete manner so that staff members are clear about role expectations.

### Appendix C: Student Leader Survey

Strongly Agree=1

Agree=2

Neutral=3

Disagree=4

Strongly Disagree=5

Response Number:	1	2	3	4	5
1. Entering into my position as a Student Leader, I felt that I had been adequately trained to respond to the learning needs of middle school students.	3	2		1	
2. Entering into my position as a Student Leader, I felt that I had been adequately trained to manage the behavior challenges of middle school students.	4		2		
3. Entering into my position as a Student Leader, I felt sufficiently prepared to respond to the economic, social, family, and ethical issues that often present when working with students from a high needs school.	2	3	1		
4. During my participation as a Student Leader, I felt that the communication amongst professionals (other Student Leaders, AU Staff, CIS Staff, and Teacher Facilitators) was helpful and efficient.	3	1	1	1	
5. During my participation as a Student Leader, I felt that my role and the roles of other professionals (AU Staff, CIS Staff, and Teacher Facilitators) were clearly outlined and adhered to.	4	1			1
6. Following my participation as a Student Leader, I feel better prepared to respond to the learning needs of middle school students.	3	2		1	
7. Following my participation as a Student Leader. I feel better prepared to manage the behavior challenges of middle school students.	4	1	1		
8. Following my participation as a Student Leader, I am better prepared to teach middle school students, particularly in the areas of math and science.	4		1	1	
9. Following my participation as a Student Leader, I feel more aware of the amount of preparation necessary to be a successful educator.	4	1			1
10. Following my participation as a Student Leader, I feel more confident about my ability to be a successful educator.	4	1		1	