STEM Science Camp
Omaha Migrant Project
Rita Miller, Migrant Liaison Specialist
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Rationale for the STEM Camp

• We have developed programming for preschool children, elementary students, and high school students, but in our assessment of services provided, we noticed that we lacked programming at the middle school level.

• Recent additions in the past 2 years:
  • Start Saturday School for middle school students with THRIVE component.
  • Assign Migrant liaisons to the middle schools with the largest migrant count.
  • 2019: STEM Science Camp for middle school students during Spring Break.
Theme for the Camp: Survival Island

• Engaging topic and activities
• Some students already had background in survival skills.
  • Personal rainforest background, wanted to topic students to connect their background to STEM.
  • Create a positive STEM learning Environment in a middle school setting.
  • Tied Island Survival to THRIVing on an Island/Growth Mindset.
• Tied to Science Standard:
• SC.7.7 Interdependent Relationships in Ecosystems
  • SC.7.7.3 Gather, analyze, and communicate evidence of interdependent relationships in
  • SC.7.7.3.A Construct an explanation that predicts patterns of interactions among organisms
    across multiple ecosystems.
  • SC.7.7.3.B Evaluate competing design solutions for maintaining biodiversity and ecosystem
    services.
  • NE endangered species and reintroduction of species
  • SC.7.7.3.C Evaluate competing design solutions using a systematic process to determine how
    well they meet the criteria and constraints of the problem.
  • SC.7.7.3.D Apply scientific principles to design a method for monitoring and increasing positive
    human impact on the environment.
Theme for the Camp: Survival Island

• Supplemental Resource:
  • Teachers Pay Teachers – Island Survival Project Based Learning Packet
  • Can edit worksheets to tailor to your program.
  • Includes video and website links.
  • We adapted the curriculum to meet our content standards in science.
  • Cost: $4.75!!
Planning for STEM Camp

- 3-Day Camp during Spring Break.
- Consulted with District Science Coach to incorporate science standards and broad concepts.
- Plan field trips for each day (community partnerships)
  - Low or no cost and experts in their areas.
  - Partnership with YMCA Camp Kitaki to reach out to students who typically do not participate in camps.
  - Partnership with Urban Garden City Sprouts
- Nutrition Services provided free breakfast and lunch.
- Hire bilingual staff.
- Recruit high school migrant students as “Junior Counselors.”
- Arrange transportation.
- Recruit from existing programming (Saturday School).
Camp Icebreaker

- Welcome to Survival Island!
- Get in groups of ______________ in a circle and introduce oneself.
- Volunteer 1 will be in the middle of circle.
- Volunteer 2 will start saying another person’s name. Volunteer 1 must try to high five the person whose name was called BEFORE that person says another person’s name. Repeat...
- If person is high fived, they will be in the middle of circle. Show example.

- Icebreakers and active Brain Breaks are a key part of engagement.
Fortnite Application

https://www.reddit.com/r/FortNiteBR/comments/7ra34m/nice_one_epic_new_compass_detail/
Incorporating Literacy Skills

- KWL chart capitalizes on students’ background knowledge of growing, building boats, building shelters.
  - Individual, Small Group, Whole Group
  - Incorporates writing and speaking skills.
  - Coaches use scaffolding according to EL level.
  - KWL whole group discussion was the most powerful part of the camp.

- Station Teaching
  - Passport stamped on completion of station.
Incorporating Literacy Skills: Journals

What do I know about?
It's hard to build a house because it rains, food isn't easy to get, you get hit. To not get killed.

What I want to know:
How to contact someone to tell them your stock here.

What I found out:
I found out how to build a good house that won't get you hurt.

I have now questions:
What will happen to the process like you were living.
Incorporating Literacy Skills: Cartography
Incorporating Literacy Skills

Theme book: *One Plastic Bag*
- Extension Writing Activity
- Making a plastic bag purse
  - Crochet or Knot Method
  - YouTube Video Guide
Lessons Learned from the STEM Camp

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Solutions</th>
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<tr>
<td>• Engaging boys in the activities.</td>
<td>• Positive male role model redirecting the boys.</td>
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<td>• Language Levels of the students</td>
<td>• “Jr. Counselors” (high school students) who speak the same language as the students.</td>
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<td>• Weather</td>
<td>• Have back-up activities planned.</td>
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Survival Island Camp
March 13, 2019

Name ______________________  School ____________________

1. What is a habitat?
   (a) A home of an animal.
   (b) Something you do that may not be good for you (like biting nails).
   (c) A group of animals.

2. What is an example of something you have seen in a habitat?
   An example of something in a habitat is __________________________.

3. A ________ is an example of a landform.
   (a) tree
   (b) flower
g. volcano

4. Is cartography the science of making maps?
   (a) Yes
   (b) No

5. What is an example of “Going Green”? An example of “Going Green” is

       ____________________________

Score _____ / 5
Post-Test and Survey

Day 1: Habitats and Scatter Joy Acres
Excellent  Very Good  Good  Fair  Poor

Day 2: Camp Kiwi
Excellent  Very Good  Good  Fair  Poor

Day 3: Going Green
Excellent  Very Good  Good  Fair  Poor

I understand I can THRIVE in difficult times in my life.

Strongly Agree  Agree  Disagree

What is a habitat?
(a) A home of an animal.
(b) Something you do that may not be good for you (like biting nails).
(c) A group of animals.

What is an example of something you have seen in a habitat?
An example of something in a habitat is ____________________.

A _______ is an example of a landform.
(a) tree  (b) flower  (c) volcano

Is Cartography the science of making maps?
(a) Yes  (b) No

What is an example of "Going Green"? An example of "Going Green" is ____________________.

What was your favorite part of Survival Island Camp?
__________________________________________
Post-Test Results

- 17 students participated in Survival Island:
  - 14 students scored proficient on the post-test.
  - 3 students made at least 20% growth.
- 100% of students either scored proficient or made at least 20% growth!
Survey: What was your favorite part?

- Building the map/building the shelter/Making a home for animals.
- My favorite part of survival island camp was telling about how animals survive.
- Doing fun things/Having fun with a friend.
- We learn how to plant/when we went to the garden.
- I like the chicken and touch the eggs.
- Everything!
- My favorite part was making smores.
Certificate of Completion

OMAHA Public Schools
CURRICULUM AND INSTRUCTION SUPPORT

recognizes

November Paw

for successfully completing the STEM Camp: Survival Island.

March 13-15, 2019

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