Al-Bustan Camp - July 2013
Science Teacher: Hope Willoe

Science Curriculum

Most of the science activities were based on the Land and Water Kit from the Science and Technology Concepts™ Curriculum developed by the Smithsonian.

Geology and mineral lessons were based on the K12 Earth Science Curriculum.

Links:
http://www.k12.com/courses/k-8-courses/sc6f1b#.UfvLj2Q-sVt

The main themes covered in science class included: comparing ecosystems, classification, rocks & minerals, engineering with pyramids, and land & water

Grades K-2 45 min lessons

Week 1
Day 1 Theme: Intro Day & Habitat
Activities:
• Ice breaker- name game,
• Go over rules,
• What a habitat and ecosystem is: brainstorm list on board, draw picture of it

Day 2 Comparing Ecosystems
Activities:
• Read story about African habitat,
• Compare and contrast ecosystem of Philadelphia and Egypt,
• Take walk outside record results

Day 3 Comparing Ecosystems
Activities:
• Talk about what we noticed for the Philadelphia ecosystem,
• Look at pictures of Egypt,
• Break down misconceptions of Egypt- dry, talk about how water changes the area,
• Fresh vs. salt water activity
Day 4 Animal Adaptations

Activities:
- Animal features that allow them to survive in their habitat,
- Create animal with labeled features- optimal for Egypt
- Go outside talk about what the area & animals would be like if we were in Egypt- journal as if we were travelers

Week 2

Day 1 Intro to classifications

Activities:
- Bird picture classification activity
- How and why we classify

Day 2 Plant classification

Activities:
- Historical significance of classification- book of plants in ancient Egypt
- Plant classification with pictures
- Outside- list your own system

Day 3 Rocks and mineral classification

Activities:
- Presence of rock and minerals in Egypt
- Observing and classifying the rocks and minerals

Day 4 Pyramids

Activities:
- Read pyramid story (possible video? or take them outside to read story)
- Make own amulet
- Make paper pyramid

Grades 3-8: 1 hour Lessons

Week 1

Day 1 Intro and Water in Egypt

Activities:
- Ice breaker- name game,
- Go over rules
- Ecosystem of Egypt

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• What we know about land and water
• Outside to observe land and water

Day 2 Water Cycle
Activities:
• Pictures of landforms shaped by water
• Set up stream tables
• Model water cycle

Day 3 Streams and Rivers
Activities:
• Work with stream table- stream investigation (creating a stream)
• Outside to observe actual stream

Day 4 Dams
Activities:
• Build dam in stream table
• Go to creek try to construct dam out there

**Week 2**

Day 1 Rocks and Mineral
Activities:
• Brainstorm where they are in Philadelphia
• Classification activity,
• Presence of rock and minerals in Egypt

Day 2 Rocks and Mineral
Activities:
• Rock walk
• Read on rocks and minerals in Africa
• Make own amulet

Day 3 Pyramids
Activities:
• Read pyramid story
• Older students- rehearse and then perform pyramid play for younger students
• Possible video?
• Simulated walk around pyramid

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Day 4 Structures

Activities:

• Connect pyramids to engineering- build sledge
• Make paper pyramids
• Then use materials (marshmallows and popsicle sticks) to try to create our own structures