

Outside Opportunity Brief Description

Name: Planetarium and/or speaker	Cycle Theme: Our Universe, Our Place
Content Area: Science	Specific Academic Unit: Big Bang and light

Briefly explain in the box below the outside opportunity you are planning to include in your cycle of study.

- **Where will you go? (or who will you bring in?)**
- **How does it relate to your academic content and/or the cycle theme**
- **What type of work will students be doing and how will they be assessed?** (see possible examples below with potential assessment options in parentheses)
 - Self-reflection (journaling?)
 - Creative artwork (sketching?)
 - Interviews (Provided table for question development and response recording?)
 - Data collection (Collection Template?)
 - Graphing (Types of graphs and data analysis questions?)
 - Orienteering (Assignment that they complete as they locate items/areas?)
 - Practical Life Skills (procedural write ups?)
 - Leadership Development (self-assessment rubrics?)
 - Etc.

Option 1 - Big event (Cycle Culmination) - Adler Planetarium in Chicago

Narrative of Activity:

This trip will be a day trip to Chicago Adler Planetarium. This activity ties into the overarching cycle theme of Our Universe, Our place. It is a culminating trip at the end of the cycle.

Need of the Adolescent:

From the seven gateways - Meaning and Purpose

Activities while onsite – Tour the exhibits: “The Universe: A Walk Through Space and Time”, “Telescopes: Through the Looking Glass”, “Our Solar System” See show – “Welcome to the Universe”

Student Work:

Would be a choice – 1) A reflective journal for what they have learned about their place in the universe over the cycle or 2) A creative art work that could be sketched out on the trip and finalized once the students are back in school if more than pencils and paper are need to complete the project.

Assessment: Would be based on participation, and thoughtfulness of final reflection or art work

Standards:

HS-ESS1-1. Develop a model based on evidence to illustrate the life span of the sun and the role of nuclear fusion in the sun's core to release energy that eventually reaches Earth in the form of radiation.

HS-ESS1-2. Construct an explanation of the Big Bang theory based on astronomical evidence of light spectra, motion of distant galaxies, and composition of matter in the universe.

Communicate scientific ideas about the way stars, over their life cycle, produce elements.

HS-ESS1-3. Communicate scientific ideas about the way stars, over their life cycle, produce elements.

Option 2 – Scaled back event - Horwitz-DeRemer Planetarium at Retzer Nature Center**Narrative of activity:**

Take buses out to the Retzer Nature Center (10 minutes away) and view shows "From Earth to the Universe" or "Sky Wars: Battles of Discovery

and "**Cosmic Recipe**" This activity ties into the overarching theme of Our Universe, Our place. The first show would show where the Earth is in the universe and give a sense of the grander of the universe. The second show is about how we are made of star stuff.

Need of the Adolescent:

From the seven gateways - Meaning and Purpose

Activities while onsite:

Watch two shows and depart back to school

Student Work:

Would be a choice – 1) A reflective journal for what they have learned about their place in the universe over the cycle or 2) A creative art work that could be sketched out on the trip and finalized once the students are back in school if more than pencils and paper are need to complete the project.

Standards:

HS-ESS1-1. Develop a model based on evidence to illustrate the life span of the sun and the role of nuclear fusion in the sun's core to release energy that eventually reaches Earth in the form of radiation.

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Option 3- Bring in a guest speaker possibly Dennis Roscoe, Ph.D from UW Waukesha

Narrative of activity:

This activity ties into the overarching theme of Our Universe, Our place.

He would be able to speak about current research in astronomy and his personal search for place in the universe as he went from biomedical engineering to astronomy.

This fits into our unit because he would be able to speak about the formation of the universe, deep space objects, and his own journey to finding his place in the universe. The students would develop questions for after his presentation.

This option cannot be fully fleshed out because it would require a call and I don't want to taxi someone's goodwill until there is more a commitment from a school.

Need of the Adolescent:

From the seven gateways - Meaning and Purpose

Student Work: Prepare interview questions and response sheets for the speaker and follow-up reflective journal.

Standards:

Common Core [1]:

CCSS.ELA-LITERACY.SL.9-10.1.C

Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.

CCSS.ELA-LITERACY.SL.9-10.1.D

Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.

CCSS.ELA-LITERACY.SL.9-10.3

Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.

Contact Information: Please include all information needed -- e.g. Location phone number or email address, transportation contact info, if you are contracting with additional personnel (e.g. canoe rental, etc.), provide their contact info as well

Option 1 – <https://www.adlerplanetarium.org/visit/field-trips/>

1300 S Lake Shore Dr

Chicago, IL 60605

Option 2 –

Parks System Division at 262-970-6680

S14 W28167 Madison St

Waukesha, WI 53188

Option 3 – Dr. Dennis Roscoe

S41W32493 Spring Ridge Lane

Waukesha, Wisconsin 53189

email: dennis.roscoe@gmail.com

What tasks need to be done before this is ready to go? Things to consider:

- Booking date with organization
- Board or administrator approval
- Submitting purchase order
- Communication to families
- Permission slips
- Fee collection
- Bus Booking
- Etc.

Option 1:

Payment due 14 days ahead of time

Link for booking - <https://www.adlerplanetarium.org/visit/field-trips/>

Cost:

Out-Of-State School Student

Museum Entry: \$7

First Show: +\$8

Second Show: +\$6

Out-of-State School Chaperone

Museum Entry: \$16

First Show: +\$8

Second Show: +\$6

Approval needed from Head of School

Emails to Parents Coordinate with (Initial, Follow-up for sign up, Follow-up with those that did not register, Reminder about trip one week ahead, Trip detailed email two days before),
Permission slips, coordinate with administration to contract for busing.

Option 2:

Payment due 21 days in advance

4.00 per person for non-Waukesha School District schools

Approval needed from Head of School

Emails to Parents Coordinate with (Initial, Follow-up for sign up, Follow-up with those that did not register, Reminder about trip one week ahead, Trip detailed email two days before),

Permission slips, coordinate with administration to contract for busing.

Option 3:

Need approval from Head of School and notification to parents. Coordinate with administration to send out emails.