**SETON HILL UNIVERSITY**

**Lesson Plan Template**

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| TOPIC | DETAILS | CK |
| **Name** | Melanie Trzeciak |  |
| **Subject** | Science |  |
| **Grade Level** | 4th Grade |  |
| **Date/Duration** | October 24th- November 4th  |  |
| [**Big Ideas**](http://www.pdesas.org/module/sas/curriculumframework/) | * There are billions of stars in our galaxy.
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| [**Essential Questions**](http://www.pdesas.org/module/sas/curriculumframework/) | * How do stars form?
* What are common stars in our night sky and what constellations do they form?
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| [**PA/Common Core/Standards**](http://www.pdesas.org/standard/views) | * Eligible Content - S4.A.3.3.1 Identify and describe observable patterns
* Eligible Content - S4.A.3.3.2 Predict future conditions/events based on observable patterns
* Eligible Content - S4.A.3.2.3 Use appropriate, simple modeling tools and techniques to describe or illustrate a system
* Eligible Content - S4.A.3.2.2 Use models to make observations to explain how systems work
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| [**Objective**](http://web.mnstate.edu/instrtech/SCmodules/LearningObjectives/LearningObjectives5.html)[**Bloom's Taxonomy**](http://k6educators.about.com/od/educationglossary/g/gbloomstaxonomy.htm)[**Webb's Depth of Knowledge (DOK)**](https://sites.google.com/a/bay.k12.fl.us/power-curriculum-test/webb-dok-resources) | * All 4th grade students, individually will be able t to create one of the constellations in our night sky (using paper and star stickers), the student will also write a short summary about their constellation, how constellations were discovered, and describe our galaxy with 85% accuracy.
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| [**Formative & Summative Assessment Evidence**](http://www.pdesas.org/module/assessment/Search.aspx) | * The students will be formatively assessed by their creation of a constellation and journal reflection on a lab sheet.
* This lesson will be included in the summative assessment at the end of the unit.
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| [**ISTE Standards for Students**](http://www.iste.org/standards)[**Framework for 21st Century Learning**](http://www.p21.org/overview) | * <http://www.stellarium.org>
* Sky View Free (iPad App) or Star Chart
* http://www.nasa.gov/mission\_pages/hubble/main/index.html
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| [**Accommodations, Modifications**](http://www.osepideasthatwork.org/parentkit/school_accom_mods_eng.asp) | * Student discussions will be held at tables instead of on the floor so that all students feel included.
* Journals will be graded on different rubric for average, above average, and below average.
* Adam may record his journal on his iPad if he is experiencing chronic pain on the day of the assignment.
* Adam may have extra time or complete the material at home if needed.
* Adam may use if own iPad if he feels more comfortable.
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| ***SUPERVISING TEACHER’S SIGNATURE*** |  |  |

**Seton Hill University Lesson Plan Template Step-by-Step Procedures**

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| **RATIONALE for the Learning Plan** |  | CK |
| **Introduction** | **Activating Prior Knowledge*** Have your parents ever shown you a constellation in the sky called the big dipper? How many constellations do you think that there are? How do you think that they got their names?
* Have you ever looked up at the sky at night and thought how amazing all of the stars look? How many stars do you think we see in our night sky?

**Hook/Lead-In/Anticipatory Set*** Create a list of constellation names that we have heard of before
* Read a few pages from the book *The Heavenly Zoo-* retold by Alison Lurie
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| **Explicit Instructions** | **Big Idea Statement*** There a billions of stars in our galaxy, and there are billions of galaxies in existence—but each star is different, jut like people.

**Essential Questions Statement*** How do stars form and what are some common constellations in our night sky?

**Objective Statement*** All 4th grade students, individually will be able t to create one of the constellations in our night sky (using paper and star stickers), the student will also write a short summary about their constellation, how constellations were discovered, and describe our galaxy with 85% accuracy.

**Transition** * Have students create galaxy bottles to describe the movement is a galaxy

**Key Vocabulary*** Constellations
* Hemisphere
* Galaxy
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| **Lesson Procedure** | **PreAssessment of Students*** Have students list constellations that they have heard of and write if they know why they have those names
* Ask students to brainstorm how frequently we see specific constellations and why they are not always in the same spot in the night sky

**Modeling of the Concept*** Have students read the designated section in their text book and who them how Stellarium and Sky View work

**Guiding the Practice*** Have the students search for particular items in space through Stellarium and Sky View and have them fill out a lab sheet with their findings
* Have the students find, observe, and pick out one constellation that they find particularly interesting.

**Providing the Independent Practice*** Have students research their constellation and have them create their constellation and write a short summary about their constellation, how constellations were discovered, and describe our galaxy

**Transition*** Visit <http://www.nasa.gov/mission_pages/hubble/main/index.html> and view some of the pictures of star and galaxies from NASA’s Hubble Telescope.
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| **Reading Materials****Technology Equipment****Supplies** | * *The Heavenly Zoo-* retold by Alison Lurie
* Galaxy bottle materials
* Project Materials
* Computers and iPads
* Lab sheets
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| **Evaluation of the Learning/Mastery of the Concept** | **Formal Evaluation*** Lab Sheet: Project and Journal of their constellation

**Informal Evaluation*** Lab sheets with their discoveries in Stellarium and Sky View
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| **Closure** | **Summary & Review of the Learning*** Read to the students about ancient people who used the constellations and compare their stories to what the students discovered.

**Homework/Assignments*** Finish project and journal if not complete
* If your parents allow see if you are able to find your constellation in the night sky.
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| **Teacher** **Self-reflection** | * I wish I would have incorporated telescopes into this lesson and showed students how to use telescopes because it would have made this lesson feel more complete.
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