Killian Middle School

September 2, 2022

1:30 - 4:00

2.5 hours

***To prepare:***
**August 30th:** Science Facilitator visit

**August 31st & September 1st:** read article in PLC by Dufour on how PLCs do Data Right and begin your STAAR test

| PLC | Location | Facilitator |
|---|---|---|
| **Fine Arts** | **Canvas** | **District** |
| **Athletics** | **Small Gym** | **Gravitt** |
| **SPED** | **1101** | **LeGuen** |
| **ELA** | **Library** | **Krol & Solon** |
| **Math** | **1102** | **Fuller & Fenner** |
| **Science** | **1301** | **Fiaccone & Sudovsky** |
| **Social Studies** | **1104** | **Connelly & Thomas** |
| **CTE** | **TECC- East** | **Jason Cooper** |
| **World Languages** | **2101** | **Spanish Teachers** |

# KMS PLC COLLABORATIVE AGENDA

**Department:** Science **DATE:** September 2, 2022

**Attendance:** Fiaccone, Sudovsky, Hill, Martinez, Borcik, Herring and Mitchell
**Facilitator:** Fiaccone & Sudovsky

**Content Area/topic:** STAAR 5th and 8th Science data analysis

***Review Department Norms with your team before beginning.***

**What is the goal of our PLC:**

To have a better understanding of what our current students in our science classes know & don't know.

**4 Questions of a PLC: (which question is the focus of the PLC)**

____ What do we want our students to learn?
__⇒ How will we know that they are learning it?
____ How will we respond when they don't learn?
____ How will we respond when they already know it?

**Notes/Data Used:**

*teachers will receive a yellow folder with the following:*

1) Article
2) Current Grade Level STAAR Test
3) Previous year's STAAR test
4) Answer Keys for both STAAR tests
5) Item Analysis for both STAAR tests

*After taking the STAAR test, teachers will go through a data analysis.*

**STEPS to highlight:**

Highlight in PINK if more students got the question incorrect than correct. This is a misconception.
Highlight in ORANGE if all answer percentages are similar.
Highlight in Yellow if 70%-90% got the question correct.
Highlight in GREEN if 90% or more got the question correct.

**Findings in the data:** TEA Item Rationale (Linked for analysis/discussion)

TEKS with misconceptions (list TEKS & student expectation)

8th Grade STAAR

#24 From 7th grade - classification. This is a 6th grade TEK that LISD moved to 7th grade. 6.12D.
However if students were taught testing strategies and use a highlighter to highlight "autotrophic" and "multicellular," students would have been able to find the answer of Kingdom Plantae

#34 this is a simple vocabulary question; however, the foreign topic of the sea anemone most likely freaked the kids out so they randomly chose an answer. Had they highlighted "abiotic," they would have seen that "dissolved oxygen" is the only non-living answer choice.

| Item # | | Rationale |
|---|---|---|
| 34 | Option J is correct | Water is an abiotic (nonliving) factor. |
| | Option F is incorrect | Predatory fish are biotic (living) factors. |
| | Option G is incorrect | Competition is a biotic factor. |
| | Option H is incorrect | Predation and scavenging are biotic factors. |

#18 - why the heck did the kids miss this question? We teach this and every 8th grader can tell you that the mitochondria is the powerhouse of the cell. GT does a cell membrane lab - I would be curious to see how GT did specifically on this question vs other levels

#38 was missed evenly.

5th Grade STAAR

Incoming 5th graders are not coming to MS with a strong understanding of energy transfers

Learned vs genetic behaviors: Although scored low, this was on the 5th grade STAAR and not in the TEKS for middle school

Microscope Q with light refraction - make sure we touch on this in 7th grade when we teach microscopes. This is why the image is flipped upside down when you look through the eyepiece

Rock cycle is heavy hit in middle school; we feel that they will do well on this in middle school - sadly, they never ask this question on 8th grade STAAR

In 5th grade they say living and nonliving parts instead of biotic and abiotic - we could make sure to tell our kids the vocabulary and expand upon what they learned in elementary school

#7 - include 2 step transfer of energy transfers - it is a bad question in all of our opinions
#13- more energy transfers and examples of different forms
#11-Vocab differences between water cycle steps
#14- give specific examples of weathering and erosion
#28-land formations-erosional formations like canyon, delta, sand dune, rock formations
TEKS with confusion (list TEKS & student expectation)
TEKS with high levels of mastery (how can we use this learning to support areas of needed growth?)

## Academic Vocabulary to review: Lead4ward resource linked

Radiant energy in lieu of light energy (taught in elementary)
Parts of the water cycle
All forms of energy-mechanical, light, thermal with examples
Biotic and abiotic factor
Specific land formations formed from weathering, erosion and deposition-sand dunes, canyon, delta (Rock Cycle)

Add Soluble to physical properties and  metals, nonmetals, metalloids

**ACTIONS:** (What changes will I make in my instructional design to meet the needs of my students?)

**What are the next steps for this PLC?**

Build test-taking strategies, create plan to embed into classrooms

Vocabulary activities to build science-related vocabulary

Ideas/Questions:

- Hallway academic displays
- If a projector is approved for our cafeteria, we'd like to add academic images and vocabulary to scroll at lunch, before school, etc.
- Could we collaborate in a multi-campus PLC to dissect data from 5th science?