PACE MEETING FOR 5 SCIENCE / UNIT 5

CLARIFY A FOCUSED AND SHARED VISION OF SUCCESS
WHAT IS IT WE EXPECT OUR STUDENTS TO LEARN?

BIG PICTURE--Unit Overview / Concepts / Key Understandings / Guiding Questions / Concept Objective:
Discuss "What must our students know and be able to do as a result of this unit we are about to teach?"

Unit 5 (part 1):
Tswbat identify and compare the physical characteristics of the Sun, Earth, and Moon. Additionally, students demonstrate that Earth rotates on its axis once approximately every 24 hours causing the day / night cycle and the apparent movement of the Sun across the sky.

Unit 5 (part 2):
TSW differentiate between weather and climate. TSW explain how the Sun and the ocean interact in the water cycle. TSW understand that weather is always changing but climate changes over a long period of time (30+ years).

P1   **READINESS STANDARDS** *have been* **Prioritized**, *Sequenced, Paced and Vertically Articulated.*

Essential High Leverage Learning Targets (EHLLT) Identified Below	**Readiness SEs with Supporting SEs: Discuss** ● **What are the key elements of each student expectation (SE)?** ● **Are there any SEs that partner with this standard (supporting or process)?** ● **What does last year's data tell us about each SE?** ● **Which Supporting Standards scaffold or lead to the readiness (supporting and process)?** ● **What process skill(s) are necessary for the student to be able to master the standard?**				
Selected EHLLT	**STAAR DATA**	**TEKS**	**Verb**	**Content**	**Specificity Focus**
	NT	**5.8A**	**differentiate**	**Between weather & climate**	**Weather – day-to-day conditions of the atmosphere in an area; weather has short-term variations (e.g., weather can change from minute-to-minute, day-to-day, or week-to-week)**

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					Weather conditions include: Temperature Wind speed and direction Precipitation Cloud cover Climate – general pattern of weather in an area over a long period of time (30 years or more [many decades]) Climate includes long term averages of Temperature Wind speed and direction Precipitation Cloud cover
	85% all 89% adv 81% gen	5.8B	explain	How the Sun and ocean interact in the water cycle	Sun / ocean interactions Solar energy, which drives the water cycle, is absorbed by the ocean resulting in evaporation Water vapor collects in the atmosphere Water vapor in the atmosphere condenses to form clouds Precipitation falls onto the ocean and land surfaces
X	66% all 73% adv 59% gen	5.8C	demonstrate	Earth rotates on its axis	causing the day/night cycle causing the apparent movement of the sun moving across the sky
	NT	5.8D	identify & compare	Physical characteristics of Sun Earth and moon	physical characteristics-size, features, composition, location Comparisons-S to M, M to E, E to S, E to M to S
	NT	4.8ABC	Measure, record, predict Describe & illustrate Collect & analyze	changes in weather the continuous movement of water above and on the surface of Earth through the water cycle and explain the role of the Sun as a major source of energy in this process.	

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					data to identify sequences and predict patterns of change in shadows, seasons, and the observable appearance of the Moon over time.	
	89% all 92% adv 86% gen	3.8D (2017)	identify		planets in earth's solar system and their position in relation to the sun	

For <mark>each</mark> identified **ESSENTIAL HIGH LEVERAGE LEARNING TARGET** complete the following <mark>bundle</mark>:

HLLT (SE #)	TSW (verb) (key focus/content)
5.8C	demonstrate how the Earth rotates on its axis causing the day/night cycle and the Sun's apparent movement across the sky.

*P2 Prioritized READINESS STANDARDS have been **unwrapped**; ESSENTIAL (High Leverage) LEARNING TARGETS have been identified at the **Concept/Skill/Context Level**.*

Identify the Concept (common understanding)	5.8C: Earth's rotation causes Night and Day
Identify the Skill (specificity)	rotation vs. revolution
Identify the Context (application/how used)	demonstrate

*P3 We have identified the **Academic Language, Key Vocabulary and Expected Rigor** for the ESSENTIAL (High Leverage) LEARNING TARGETS.*

Identify the Academic Language	**5.8C** **atmosphere** *axial tilt* **axis** *equator*

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	northern hemisphere
	southern hemisphere
	orbit
	prime meridian
	revolution/revolve
	rotation/rotate
	shadows/sunrise/sunset
	counter clockwise vs. clockwise
	cycle
	<u>apparent</u> movement
	seasons
	sequence
	moon phases
	5.8D
	crater
	moon phase
	sun spots
	solar flares
	maria
	satellite
	weight
	reflect
	Physical features
	Surface temperature
	5.8AB
	condensation
	precipitation
	atmosphere
	weather (distinguish weather terms)
	climate (30 years or more)
	evaporation
	interact
	run-off
	Solar energy
	Temperature
	Thermal energy
	Decades

	Runoff short-term long-term average
Identify the Key Vocabulary	**5.8C** **revolution / break down by syllable - longer** **rotation / "rodaytion"** **moon phases / "Moonth" - month**

*P4 We have **Developed and Calibrated COMMON RUBRICS** where needed, **agreeing on the Criteria** we will use in **judging the quality of student work.***

*P5 We have **Practiced Applying the Criteria** in our efforts to **Develop Anchor Papers** and **Inter-Rater Reliability**.*

Let's get Common…
We have identified the **level of rigor**; now let's make sure that we all understand what that looks like, sounds like, and is measured for mastery in a **COMMON** way. Discuss how mastery for this **HLLT** looks (criteria) and become **common** by applying it as a team to student papers to develop inter-rater reliability. Come to a **CONSENSUS** on **Mastery**.

*P9 We have **Brainstormed**…**Common Misconceptions** in our collaborative discussions…*

Common Misconceptions include:
Students may think the Earth's revolution around the Sun causes day and night, rather than the rotation of the Earth on its axis every 24 hours.
Students may think that day and night are caused by the Sun going around the Earth, rather than the rotation of the Earth on its axis every 24 hours.
Students may think the Sun moves across the sky, rather than the Earth rotating on its axis every 24 hours.
Shadows cast in certain directions/ opposite of the sun/sun is stationary
Seasons are caused by the distance between the earth and the sun
Sun rises on the left side of the page and sets on the right side of your paper. Make sure to mix it up and reinforce the EAST/WEST words.

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HOW WILL WE KNOW WHEN THEY HAVE LEARNED IT?

*P10 We have **Designed a Common Formative Assessment** and Set **Proficiencies, Protocols**, and a **SMART Goal**.* An example of a **Design Process Protocol** below.

Step 1: Decide What to Assess Step 2: Decide How to Assess Step 3: Develop the Assessment Plan Step 4: Determine the Timeline Step 5: Write the Assessment Step 6: Review the Assessment Before Administration Step 7: Set Proficiency Criteria and Decide How to Gather the Data
Determine the **Dates for the Common Assessment** and the **Date** for coming together to **review the data** with the **protocol** that will be used. 1/23-1/25 5.8C CA
Set a **SMART Goal** Students will be at 88% for masters/advanced on the Common Assessment. Students will be at for meets/gen ed 75% on the Common Assessment.

Develop a **broad online calendar** that lays out the sequence and number of days for the **ESSENTIAL (High Leverage) LEARNING TARGETS** including the **Common Assessment date** and the **CA Data Review date**.

UNIT at a GLANCE

Dates	Monday	Tuesday	Wednesday	Thursday	Friday

Week 1	1/7 Professional Development Day	1/8 Spiral Review Activities	1/9 Spiral Review Activities MOY MAP	1/10 MOY MAP	1/11 MOY MAP Pre-Assess 5.8C
Week 2	1/14 5.8C Rotate & Revolve	1/15 5.8C R & R	1/16 5.8C R & R	1/17 5.8C R & R	1/18 5.8C R & R Open window… for CA
Week 3	1/21 MLK Day	1/22 5.8C R & R	1/23 5.8C R & R CA window	1/24 Flex: Reteach/E,S,M CA window Discuss 5.8C Data	1/25 Flex: Reteach/E,S,M CA window
Week 4	1/28 E,S,M	1/29 E,S,M	**1/30** **Water Cycle**	1/31 Water Cycle Weather & Climate	2/1 Weather & Climate
Week 5	2/4 Weather & Climate	2/5 Weather & Climate	2/6 **Wylie Way Day**	2/7 **PACE DAY- SUBS**	2/8 Flex/ Weather & Climate
Week 6	2/11 Review	2/12 Flex Day **Unit 5 Assessment** Window	2/13 Flex Day **Unit 5 Assessment** Window	2/14 Flex/Reteach	2/15 Flex/Reteach

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REPEAT THIS PROCESS FOR EACH OF THE IDENTIFIED ESSENTIAL HIGH LEVERAGE LEARNING TARGETS DURING YOUR PACE MEETING DAYS.

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