

# Region 4 Science Workshop Offerings for 2019-2020 (DRAFT)

## Science Leadership

October 29, 2019

**Shouting Won't Grow Dendrites: 20 Techniques to Detour Around the Danger Zones (Presented by Dr. Marcia Tate): Session 1462250, \$160**

Have you ever noticed that the louder some teachers get when reprimanding students, the louder those students also become? Learn techniques for managing an active, brain-compatible classroom without ever raising your voice. Experience five techniques that proactive classroom managers use to avoid the problems in the first place. Learn to 1) develop a relationship with each student; 2) Create a physical classroom environment that is conducive to optimal learning; 3) Deliver engaging lessons with the use of brain-compatible strategies; 4) Develop a proactive management plan; and 5) tackle the most challenging 10% of students by using techniques which appear to work with such chronic behavior disorders as attention-deficit, conduct, or oppositional disorder. You will also experience the bonus of learning to create a home environment which minimizes stress and maximizes calm!

October 30, 2019

**Worksheets Don't Grow Dendrites: 20 Instructional Strategies that Engage the Brain (Presented by Dr. Marcia Tate): Session 1462257, \$160**

Have you ever wondered why some students cannot understand or recall important content after a 24-hour period? If your students are not learning the way you are teaching them, then you must teach them the way they learn! Experience 20 instructional strategies (based on brain research) that maximize memory and minimize forgetting. Increase learning for all students when strategies like drawing, metaphor, movement, music, and storytelling are used to teach curriculum objectives and meet international standards. Explore research that shows why these strategies are preferable to others. Ensure that brains retain key concepts, not only for tests but for life! This workshop has been called both professional and personally life-changing and lots of fun!

# Region 4 Science Workshop Offerings for 2019-2020 (DRAFT)

## K-5

- October 23, 2019      **Supporting STAAR Achievement for Grade 5 Science: Session 1454306, \$130**  
Explore differentiated lessons that address Readiness Standards for STAAR Science Grade 5. Each 5E lesson includes intervention strategies and ELPS-based support to make science content accessible to all learners. The registration fee includes
- November 5-6, 2019  
or  
February 4-5, 2020      **STEM in the Science Classroom, K-5**  
**November 5-6, 2019: Session 1454414, \$170**  
**February 4-5, 2010: Session 1454619**  
**Day 1 – Design Thinking in the Science Classroom**  
Explore design thinking practices including communication, collaboration, critical thinking, and creativity. Learn to facilitate problem solving using the Engineering Design Process to make content engaging and relevant for students. Participants will leave with practical ideas for implementation of STEM practices and making in the classroom.  
**Day 2 – Finding the STEM in the Science TEKS**  
Experience and discuss ways to extend the science TEKS to STEM (Science, Technology, Engineering, and Mathematics) challenges. Discover how to increase rigor and student achievement by providing students with opportunities to apply science concepts to solving real world problems while using 21st century skills.
- Nov. 1, 2019,  
Dec. 4, 2019 and  
January 15, 2020      **T.E.A.M.S. that Win: Effective Practices for Meeting the Needs of Diverse Learners in Elementary Science: Session 1438921 \$105**  
*“Teaching Engaging Academics and Motivating for Success” (T.E.A.M.S.)* is a three-day professional development series that applies the Universal Design for Learning (UDL) and the Positive Behavior Interventions and Supports (PBIS) frameworks to content specific Texas Essential Knowledge and Skills (TEKS) instruction and classroom design. The series will be presented by a Region 4 collaborative triad whose expertise includes classroom management, access to the general curriculum, and science. Participants will be provided with effective research-based skills and strategies which address diverse learners’ access to the general curriculum. Knowledge and skills learned will support student achievement impacting STAAR™ success.  
The three days will integrate classroom management strategies with the UDL principles of multiple means of engagement, representation, and action and expression. Classroom teachers are encouraged to build personal capacity by bringing a lesson which can be used to implement these strategies. Between each session, participants are asked to collect information based on implemented strategies.  
District and/or campus teams (such as, but not limited to, general & special education teachers, behavior specialists, campus/district leaders, diagnosticians, and LSSPs) are encouraged to attend. Session and materials costs are partially funded through state or federal grants.  
  
Due to the cumulative nature of the content, participants must commit to attending all of the dates in the training series.

# Region 4 Science Workshop Offerings for 2019-2020 (DRAFT)

## K-5

- November 12, 2019      **Detecting, Confronting, and Replacing Misconceptions in Science for Grades 3-8: Session 1454419, \$135**  
Explore how to detect misconceptions through various types of formative assessments. Create cognitive dissonance to confront misconceptions with models and hands-on investigations. Replace those misconceptions by building conceptual understanding using movement, art, and student discourse.
- December 3, 2019      **Coding and STEM: Essential Tools for the Elementary Classroom: Session 1454441, \$85**  
Explore how coding develops academic, organizing, and problem-solving skills. In this hands-on session, participants will experience plugged and unplugged activities that promote critical thinking, creativity, and communication while reinforcing science content. Plugged activities will include work with Bee-Bot, Ozobots, and Sphero SPRK. Participants will walk away with practical ideas for immediate implementation.
- January 28, 2020      **STAAR Review to Go for Grade 5 Science (Volume 1): Session 1454602, \$155**  
Explore portable science activities to review science concepts assessed on STAAR Science Grade 5. Participants will receive materials to create a set of review activities used in the session, a copy of STAAR Review to Go: Science Grade 5 (Volume 1), and a license for digital access.  
**Register Early!  
This session sells out.**
- February 11, 2020      **More STAAR Review to Go for Grade 5 Science (Volume 2): Session 1454632, \$145**  
Explore portable science activities to review science concepts assessed on STAAR Science Grade 5. Participants will receive materials to create a set of review activities used in the session, a copy of STAAR Review to Go: Science Grade 5 (Volume 2), and a license for digital access.  
**Register Early!  
This session sells out.**
- February 25, 2020      **STAAR Review to Go for Grade 4 Science: Session 1454650, \$155**  
*STAAR Review to Go: Science for Grade 4* is a student-centered review resource that supports the Science TEKS taught in grade 4 and assessed on the grade 5 STAAR exam. Laying a strong foundation in science beginning in kindergarten is critical for student success. Entering fifth grade with a solid knowledge of science allows fifth grade teachers to dig deeper into the content and allows students to better master it. The grade 5 STAAR exam is cumulative and assesses supporting TEKS from both third and fourth grades.  
For grade 4, teachers can use these activities to review, reteach, or spiral back to previously taught concepts. For grade 5, teachers can use these activities over 1-2 days or up to two weeks as review activities before the STAAR exam in science class. The activities can also be used as Saturday review sessions or during tutorials.  
Explore portable science activities to review science concepts assessed on STAAR Science Grade 5. Participants will receive materials to create a set of review activities used in the session, a copy of *STAAR Review to Go: Science Grade 4* and a license for digital access.

# Region 4 Science Workshop Offerings for 2019-2020 (DRAFT)

March 18, 2020      **STAAR Review to Go for Grade 5 Science, Volumes 1 and 2: Session 1454652, \$280**  
Explore portable science activities to review science concepts assessed on STAAR Science Grade 5. Participants will receive materials to create a set of review activities from each book; one copy each of *STAAR Review to Go for Grade 5 Science, Volumes 1 and 2*; and one license for digital access to each book.

## Grades 3-12

October 31, 2019      **Literacy in Science: Session 1454413, \$155**  
Do your students struggle when you ask them to read or write in your science classroom? Participate in research based literacy strategies designed to promote reading and writing in the science classroom. Newly gained skills and strategies can make an immediate impact towards closing achievement gaps in classrooms on campuses requiring improvement. Participants will receive a copy of *Gateways to Science Companion Guide: Literacy*.

December 6, 2019      **Break Out! Creating Escape Games for the Science Classroom: Session 1454416, \$100**  
Have you ever visited an escape room? A good escape room challenges participants to think creatively and critically while working together to decode clues and solve puzzles within a time limit. Learn how to bring the excitement of an escape game to your classroom! Challenge students to apply what they have learned and support the development of the 4 C's of STEM – creativity, critical thinking, communication, and collaboration. Attendees will participate in both physical and virtual science escape games and learn how to plan and manage their own classroom “breakout” activities.

February 5, 2020      **Visual Literacy in Science: Session 1454630, \$85**  
Did you know that an average of 70% of the items on STAAR require students to analyze graphics? Discover ways to support students as they navigate the world of charts, graphs, maps, and infographics in science. Participants will analyze different types of graphics, including examples from STAAR released items, and implement strategies to guide all types of learners through the process of representing data in multiple ways. Provide your students with the tools to solve problems, dissect unfamiliar information, and think like a scientist.

# Region 4 Science Workshop Offerings for 2019-2020 (DRAFT)

## Grades 6-8

- October 30-31, 2019  
or  
January 29-30, 2020
- STEM in the Science Classroom, Grades 6-8:**  
**October 30-31, 2019: Session 1454410, \$170**  
**January 29-30, 2020: Session 1454613, \$170**
- Day 1 – Design Thinking in the Science Classroom  
Explore design thinking practices including communication, collaboration, critical thinking, and creativity. Learn to facilitate problem solving using the Engineering Design Process to make content engaging and relevant for students. Participants will leave with practical ideas for implementation of STEM practices and making in the classroom.
- Day 2 – Finding the STEM in the Science TEKS  
Experience and discuss ways to extend the science TEKS to STEM (Science, Technology, Engineering, and Mathematics) challenges. Discover how to increase rigor and student achievement by providing students with opportunities to apply science concepts to solving real world problems while using 21st century skills.
- November 12, 2019
- Detecting, Confronting, and Replacing Misconceptions in Science for Grades 3-8: Session 1454419, \$135**
- Explore how to detect misconceptions through various types of formative assessments. Create cognitive dissonance to confront misconceptions with models and hands-on investigations. Replace those misconceptions by building conceptual understanding using movement, art, and student discourse.
- November 14, 2019
- Supporting Struggling Learners in Middle School Science: Session 1454420, \$135**
- Middle schoolers have a short attention span but are intensely curious. They may be logical one minute and emotional the next. Experience and learn strategies to reach even the most resistant middle school learner with proven practices to remove barriers and make science accessible to all. Practice using the Universal Design for Learning (UDL) framework to adjust and improve lessons to make science engaging, real, and relevant not just for today but for the future. Incorporate the English Language Proficiency Standards (ELPS) seamlessly to support kids who are learning science content as well as English. It's all about the experience, so make it a great one!
- January 16, 2020
- STAAR Review to Go for Grade 8 Science (Volume 1): Session 1454601, \$155**
- Explore portable science activities to review science concepts assessed on STAAR Science Grade 8. Participants will receive materials to create a set of review activities used in the session, a copy of STAAR Review to Go: Science Grade 8 (Volume 1), and a license for digital access.
- February 13, 2020
- More STAAR Review to Go for Grade 8 Science (Volume 2): Session 1454793, \$155**
- Explore portable science activities to review science concepts assessed on STAAR Science Grade 8. Participants will receive materials to create a set of review activities used in the session, a copy of STAAR Review to Go: Science Grade 8 (Volume 2), and a license for digital access.

# Region 4 Science Workshop Offerings for 2019-2020 (DRAFT)

## Grades 6-12

Nov. 7, 2019,  
Dec. 3, 2019, and  
January 14, 2020

**T.E.A.M.S. that Win: Effective Practices for Meeting the Needs of Diverse Learners in Secondary Science: Session 1438918, \$105**  
*See elementary description*

Due to the cumulative nature of the content, participants must commit to attending all of the dates in the training series.

December 4,  
2019

**Developing Scientific Explanations in Secondary Science: Session 1454832, \$85**  
Discover instructional strategies to support science literacy and meaningful discourse in secondary science classes. Explore a Claim, Evidence, and Reasoning (CER) task to develop and write scientific explanations, and communicate and evaluate scientific explanations during rebuttal (argumentation). Learn how to develop your own CER tasks.

February 6, 2020

**Strategies for English Language Learners in the Secondary Science Classroom: Session 1454631, \$85**

Explore research-based practices to help English Language Learners understand concepts while supporting academic language development for all students. Participants will practice identify the linguistic factors to be considered for making content accessible to English Language Learners. Strategies explored can be easily implemented into the classroom and yield student engagement opportunities in listening, speaking, reading, and writing about content area concepts. Acquired strategies would further enable participants to effectively facilitate inquiry science, motivate students, and enhance the overall classroom climate.

# Region 4 Science Workshop Offerings for 2019-2020 (DRAFT)

## Grades 9-12

- October 23, 2019      **Detecting, Confronting, and Replacing Misconceptions in Science for Grades 9-12: Session 1449867, \$135**  
Explore how to detect misconceptions through various types of formative assessments. Create cognitive dissonance to confront misconceptions with models and hands-on investigations. Replace those misconceptions by building conceptual understanding using movement, art, and student discourse.
- October 24, 2019      **Teaching Biology with E's: Student Centered 5E Lesson Series Session 1, \$175**  
**or**  
January 23, 2020      **October 24, 2019: Session 1454409**  
**January 23, 2020: Session 1446699**  
Need ready to use, rigorous, engaging biology lessons? Join us for a hands-on workshop. This professional development will target content for Cell Cycle and Growth and Biomolecules aligned with the Streamlined TEKS. Participants will experience and receive classroom-ready 5E lessons designed to engage students at the rigor of the TEKS using research-tested best practices. Teachers will gain an understanding of how to implement effective learning activities that reach the diverse needs of Biology students. Each lesson includes formative assessment that uncovers student misconceptions and components of the Universal Design for Learning. This series supports campus data-based decision making by allowing educators and campus leaders to choose sessions that target weak curricular areas.
- November 12, 2019      **STAAR Review to Go: Biology**  
**Volume 1: Session 1454590, \$155**  
**Volume 2: Session 1454418, \$155**  
**Volume 1 and 2: Session 1454589, \$280**  
Explore portable science activities to review science concepts assessed on STAAR Biology. Participants will receive materials to create a set of review activities used in the session, a copy of STAAR Review to Go: Biology (Volume 1, Volume 2, or both Volume 1 and 2), and a license for digital access.

# Region 4 Science Workshop Offerings for 2019-2020 (DRAFT)

## Grades 9-12

January 29, 2020

### **Supporting Struggling Learners in IPC, Chemistry, and Physics:**

#### **Session 1454610, \$135**

Experience and learn strategies designed to reach the struggling high school science learner with proven practices to remove barriers and make science accessible to all. Practice using Universal Design for Learning (UDL) framework to adjust and improve lessons to make science engaging, real, and relevant not just for today but for the future. Learn to incorporate the English Language Proficiency Standards (ELPS) seamlessly to support kids who are learning science content as well as English. It's all about the experience, so make it a great one.

March 19, 2019

### **The Power of Language Objectives: Getting Our English Learners to Read, Write, Listen and Speak in the Secondary Science Classroom: Session 1454412, \$85**

Experience instructional strategies and techniques that support English Language Learners in listening, speaking, reading, and writing about content area concepts. The strategies explored are designed to be easily implemented into the classroom and help ELLs at all proficiency levels understand concepts while supporting academic language development for all students. Participants will discuss application and immediate implementation.

March 26, 2020

### **STAAR Review to Go: Biology**

#### **Volume 1: Session 1454666, \$155**

#### **Volume 2: Session 1454656, \$155**

#### **Volume 1 and 2: Session 1446700, \$280**

Explore portable science activities to review science concepts assessed on STAAR Biology. Participants will receive materials to create a set of review activities used in the session, a copy of STAAR Review to Go: Biology (Volume 1, Volume 2, or both Volume 1 and 2), and a license for digital access.