

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

Science Leadership

May 21, 2019

Uncovering Cognitive Complexity: Using Depth of Knowledge (DOK) to Deconstruct and Understand the Science TEKS: Session 1383757, \$90

Have you ever wished for a secret TEKS decoder ring? Explore a method that can unlock what students *really* need to know and be able to do, and help establish student rigor levels. Build capacity in assigning DOK levels and deconstructing the standards as we analyze and interpret the cognitive complexity of learning objectives, activities, and test items. Newly acquired skills will help you better align curriculum, instruction, and assessments to the rigor of the TEKS. This session provides recommended background knowledge for Rigorous by Design: Using Depth of Knowledge (DOK) for Instructional Planning in Science.

May 22, 2019

Rigorous by Design: Using Depth of Knowledge (DOK) for Instructional Planning in Science: Session 1383758, \$90

Are your lessons aligned to the complexity of the TEKS? It might be time for an alignment. Apply Depth of Knowledge (DOK) analysis to instructional planning and design effective lessons that scaffold learning to TEKS mastery in science. Using DOK as a guide, we will write specific learning goals aligned with the depth and complexity of the TEKS and plan logically sequenced activities to reach those goals. Prior knowledge of Depth of Knowledge (DOK) leveling and TEKS deconstruction is recommended for this session.

June 4, 2019

NEW!

Keeping the End in Mind: Mapping Rigorous Instruction for All: Session 1382244, \$90

Enhance classroom instruction by applying backward design and the 5E Instructional Model. Plan instruction that connects science concepts and processes while making learning accessible to all students. Explore lesson planning strategies that facilitate the development of conceptual understanding and address the Texas Essential Knowledge and Skills (TEKS) at the appropriate level of rigor.

June 5-6, 2019

TOT!

Roadmap to Rigorous Assessment in Science: Session 1382246, \$225

Learn how to create quality assessments that align to the rigor of the science TEKS. Discover components of high quality assessment, including blueprint development, test format, and assessment reliability and validity. Examine characteristics of high quality assessment items, including effective question stems and distractors. On Day 2, participants will apply new knowledge and skills to review, revise, and create assessment items. *This is a training-of-trainers session. Participants will receive presentation materials.*

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

Science Leadership

July 15-16, 2019

Start Strong in Science Instructional Coaches (Region 4 Science): Session 1420718, \$260

This two-day workshop targets science leaders and instructional coaches. Day one is focused on examining effective practices and procedures for instructional coaching. Day two will address data-based instructional coaching, to include how to collect data and have critical coaching conversations. Fee includes two books to add to your instructional library: *Building Teachers' Capacity for Success* - Pete Hall, and *Teach Like a Champion 2.0* - Doug Lemov.

July 17, 2019

NEW!

Leading Data-Driven PLCs Using Science Content: Session 1450819, \$135

Take data-driven instruction from theory to action with Prioritized Lever 5: Effective Instruction from the Effective Schools Framework (ESF). Learn how to disaggregate data, identify student misconceptions, and create reteach action plans to ensure student mastery. This framework can be applied cross-curricularly, focuses on looking at student work to inform instruction, and addresses misconceptions revealed during analysis. Participants will leave with a protocol for facilitating weekly data meetings and a copy of *Leverage Leadership 2.0* by Paul Bambrick-Santoyo.

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

K-12

- June 17, 2019
Conference! **Region 4 STEAM Conference: Session 1440903, \$110**
Explore the power of S.T.E.A.M. (science, technology, engineering, art, mathematics) as it applies to real-world connections, creativity through collaboration, and innovation through art and engineering. This 1-day conference incorporates workshop-style sessions organized by grade bands and identified by STEAM strands, allowing you to personalize your conference experience. Discover innovative ways to make instructional connections that transform engaged students to empowered learners.
- July 9-10, 2019
Conference! **Access to the General Curriculum (AGC) Institute: Session 1295262, \$45**
The goal of the AGC Institute is to provide educators with high-quality professional learning experiences covering a wide range of topics designed to build their capacity in evidence-based practices for instruction. The AGC Institute offers attendees a wide variety of opportunities to hear from national, state, and local experts through general and concurrent sessions.
- July 29-30, 2019 **Start Strong in Science 1.0: *Session information coming soon!***
Four half-day sessions presented over two days.
- July 31-Aug. 1, 2019 **Start Strong in Science 2.0: *Session information coming soon!***
Four half-day sessions presented over two days.
- October 17, 2019
Conference! **Region 4 Science Conference: *Session information coming soon!***
Key note speakers, breakout sessions, lunch, and so much more.

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, \$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.
- Nov. 8, 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
NEW!
- Detecting, Confronting, and Replacing Misconceptions in Science for Grades 3-8, Session 1454419, \$155**
Explore how to detect misconceptions through warm-ups and formative assessment. Confront misconceptions by creating cognitive dissonance with models and hands-on investigations. Then replace misconceptions using movement, art, and vocabulary strategies. Participants will receive a printed copy of and digital access to Warm Up to Science TEKS-Based Engagement Activities.
- December 3, 2019
NEW!
- 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.
- 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.
- February 25, 2020
- STAAR Review to Go for Grade 4 Science: Session 1454650, \$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 4* and a license for digital access.
- 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.

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

3-12

May 21,
2019

Uncovering Cognitive Complexity: Using Depth of Knowledge (DOK) to Deconstruct and Understand the Science TEKS: Session 1383757, \$90

Have you ever wished for a secret TEKS decoder ring? Explore a method that can unlock what students *really* need to know and be able to do, and help establish student rigor levels. Build capacity in assigning DOK levels and deconstructing the standards as we analyze and interpret the cognitive complexity of learning objectives, activities, and test items. Newly acquired skills will help you better align curriculum, instruction, and assessments to the rigor of the TEKS. This session provides recommended background knowledge for Rigorous by Design: Using Depth of Knowledge (DOK) for Instructional Planning in Science.

May 22,
2019

Rigorous by Design: Using Depth of Knowledge (DOK) for Instructional Planning in Science: Session 1383758, \$90

Are your lessons aligned to the complexity of the TEKS? It might be time for an alignment. Apply Depth of Knowledge (DOK) analysis to instructional planning and design effective lessons that scaffold learning to TEKS mastery in science. Using DOK as a guide, we will write specific learning goals aligned with the depth and complexity of the TEKS and plan logically sequenced activities to reach those goals. Prior knowledge of Depth of Knowledge (DOK) leveling and TEKS deconstruction is recommended for this session.

June 5, 2019

Beginners, Enders & In-Betweeners in the Science Classroom: Session 1449166, \$85

Science is an epic story and a great science lesson is a chapter that can keep kids on the edge of their seats. What can a science teacher do to make the story of science a best seller and memorable for years to come? Discover ways to begin the story by getting students' attention and setting them up to be successful. Learn strategies to wrap up a lesson to make it memorable and meaningful. Fill the in-between time with engaging activities, checks for understanding, and ways to make learning personal and purposeful. Participate in examples of research-based practices that support student learning throughout a lesson and take back ideas to immediately use in your classroom.

June 13,
2019

**Break Out! Creating Escape Games for the Science Classroom:
June 13, 2019: Session 1449165, \$100**

or
November
6, 2019

November 6, 2019: 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.

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

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*.

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)

6-8

October 29-30,
2019
or
January 29-30,
2020

STEM in the Science Classroom, Grades 6-8:

October 29-30, 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

NEW!

Detecting, Confronting, and Replacing Misconceptions in Science for Grades 3-8, Session 1454419, \$155

Explore how to detect misconceptions through warm-ups and formative assessment. Confront misconceptions by creating cognitive dissonance with models and hands-on investigations. Then replace misconceptions using movement, art, and vocabulary strategies. Participants will receive a printed copy of and digital access to Warm Up to Science TEKS-Based Engagement Activities.

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)

6-12

July 25, 2019
or

December 4,
2019

NEW!

Developing Scientific Explanations in Secondary Science:

July 25, 2019: Session 1449167, \$85

December 4, 2019: 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.

October 30, 2019

NEW!

Creating Opportunities for ELLs to Read, Write, and Speak in the Secondary Science Classroom, Focus on Language Objectives: 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.

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

“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.

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

6-12

February 6, 2020

NEW!

**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 identifying 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)

9-12

June 13, 2019
NEW!

**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.

June 20, 2019
or
October 24, 2019
or
January 23, 2020

**Ready? Set? Go Teach Biology with E's!
June 20, 2019: Session 1449837, \$175
October 24, 2019: Session 1454409, \$175
January 23, 2020: Session 1446699, \$175**

Are you spending hours on end pulling from various resources to plan biology instruction? Come experience, and then practice delivering *Teaching Biology with E's* lessons intentionally designed to help support learner variability at the rigor of the TEKS! Build instructional capacity and confidence in a supportive environment using ready-to-use, student-centered, 5-E lessons from our lesson series. Registration includes digital access to all ten 5-E lessons.

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.

January 29, 2020
NEW!

**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 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.

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