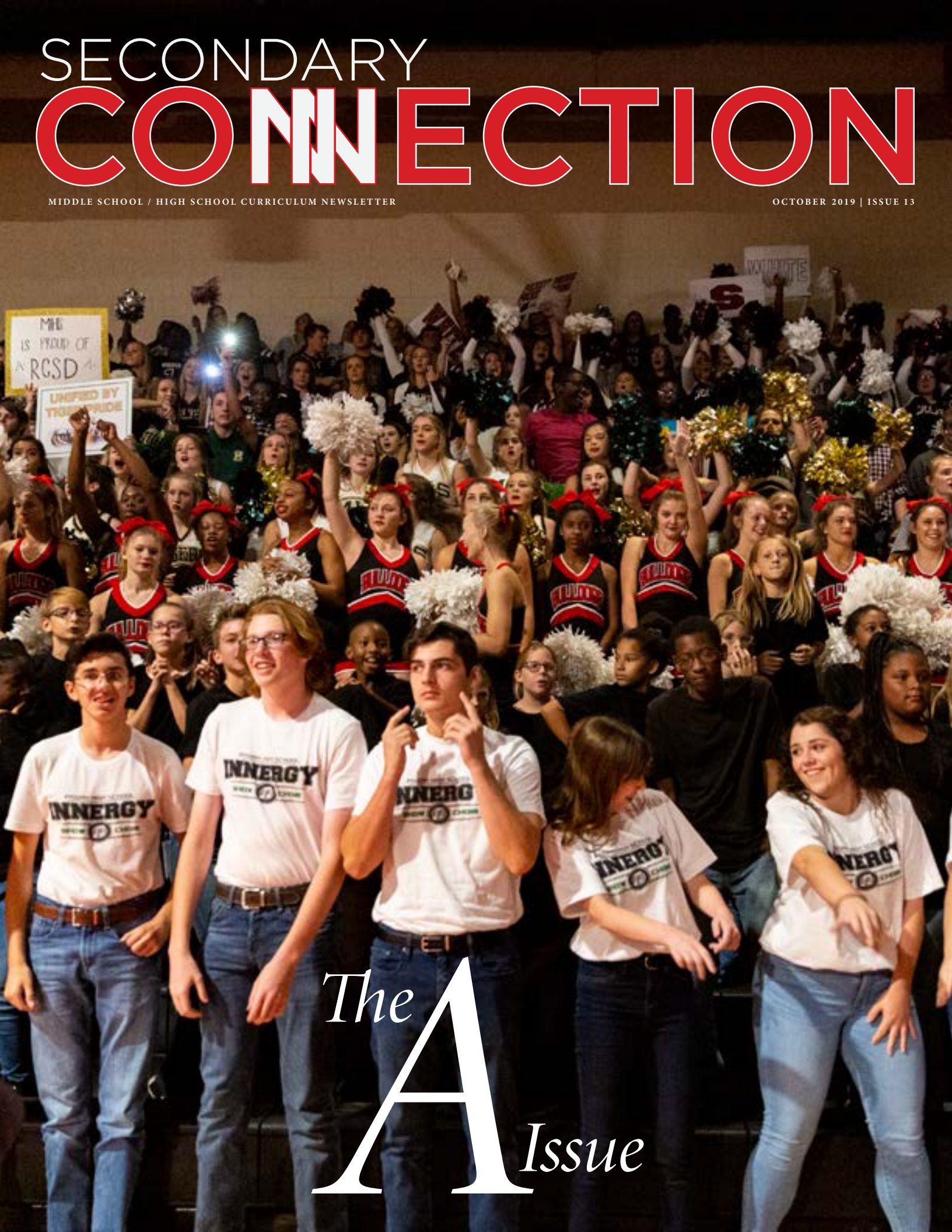
SECONDARY CONNECTION

MIDDLE SCHOOL / HIGH SCHOOL CURRICULUM NEWSLETTER

OCTOBER 2019 | ISSUE 13



The A Issue

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Florence
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Northwest
Pelahatchie
Pisgah
Puckett
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The amount of technology available to our 21st Century learners is far from my high school experience. Now that we have all this tech, what do we do with it, and where should we be headed?

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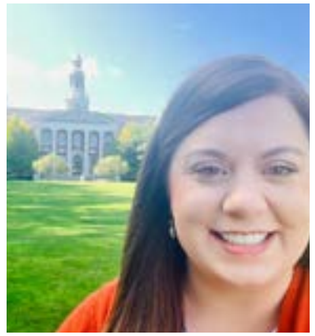
ADVOCATE, MOTIVATE, AND INSPIRE

Teachers don't make any money. Why would you be a teacher? Isn't teaching more of a hobby than a job? As educators, we hear these comments all the time. This type of mentality only fuels the fire for the biggest problem we face as a district, state, and nation--the teacher shortage.



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Yes, it IS true that there is a national teacher shortage, but when you experience days like September 17, 2019, you are hopeful for the future of education!

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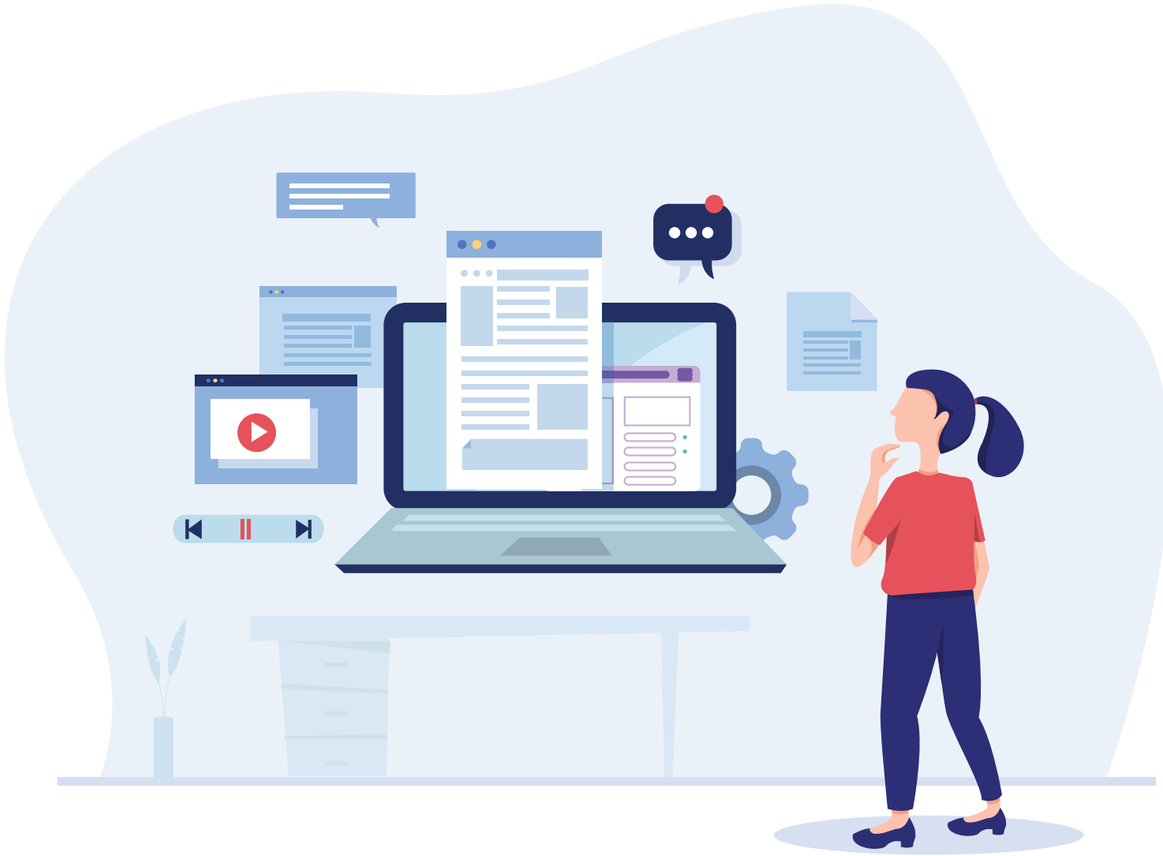
GET LIT(ERACY) WITH MATH

With the implimentation of College- and Career- Readiness Standards, much of what students are being asked to do is to apply the mathematics they are learning.

What Can Sources Do For You?

by Catherine Beasley

What can sources do for you? Sources help bring content to life. Good sources can help students spark curiosity, build knowledge, provide background, and ensure evidence to answer disciplinary questions and tasks. Sources can help teachers portray a variety of perspectives, amp up the content in the textbook, spice up conversation around a particular topic, and provide more context to a specific idea.



Not all sources can do all of these things and have to be chosen carefully to help fulfill the design and structure of your lesson. In thinking about the best way to support your classroom content and instruction, text sets can help provide a variety of dimensions for students to use when deep diving into a specific content area or topic. Grouping sources together with specific and planned instruction can help build reading and thinking skills within the discipline. In planning for text sets, sources should be able to provide students with access to the content and evidence to what is needed to answer disciplinary questions and tasks.

A text set is a group of texts, or multi-media, that is tightly centered around a topic, theme, or idea to match a standard(s). Building a strong text set can help students gain a better grasp on content-specific vocabulary and develop knowledge and skills while reading about similar ideas or topics. Texts can be connected to an overarching topic, while diving into different areas of information.

Creating text sets for your classroom can give you a chance to include multiple genres or media for students to dive into, as well as gives an opportunity to incorporate instructional strategies for skills practice with texts. Media that could be included in a text set might include primary-source documents, maps, photography, art, audio recordings, or speeches. When choosing texts for your classroom, make sure to consult your standards. Too often, we make the mistake of not getting the most "bang for our buck" when choosing texts for students to explore. Choosing the text is one of the most important parts for a text set to be successful in the classroom!

Strong Text Sets	Weak Text Sets
Text sets include a range of print and digital texts in diverse media, formats, and lengths.	Text sets are exclusively print or digital and focus on one media, format, and/or length
Text complexity levels support student achievement and the grade-level demands of the standard.	Text complexity levels are erratic and do not support the grade-level demands of the standard.
Texts are used in service to the standards.	Text are selected before standards are identified.
Texts build student knowledge about a topic, and there is meaningful connections.	Texts are not related or connected across sets, or they are only superficially connected.
Texts are authentic, rich, culturally responsive, and worthy of study.	Texts are only commissioned texts or textbook passages.

**adapted from Wisconsin Department of Public Education*

Your text sets can be organized in a variety of ways to ensure a high-quality experience for students. Always keep in mind what outcomes are for your students when organizing the set. To be effective, the set should be presented in a specific order to help guide text complexity, vocabulary development, content (background) knowledge, and content understanding. The creation of your text set can be physical or digital. Physical text sets could be organized in small containers, folders, or paper sleeves to ensure they do not get messed up during multiple uses. Digital text sets could be organized on a Google Doc, in the form of a hyper-doc, where students are designed in a particular way for students to move through the texts and engage in the content.

Hyper Doc Resources

What are Hyper Docs? https://hyperdocs.co/
Hyper Docs transform the Classroom Experience

In thinking about how we can help students develop a love of history {or any content} it is apparent that we must expose them to a variety of different topics and resources. This will help guide their development and understanding in a particular area. Take some time in your classes to help bring the sources of inquiry to life and provide students with opportunities to be a part of history {or any content}!

Text Set Resources

Achieve the Core
National Writing Project
Newsela - Text Sets
Primary Source Sets - Library of Congress
CommonLit
Kentucky Text Sets

BACK TO SCHOOL

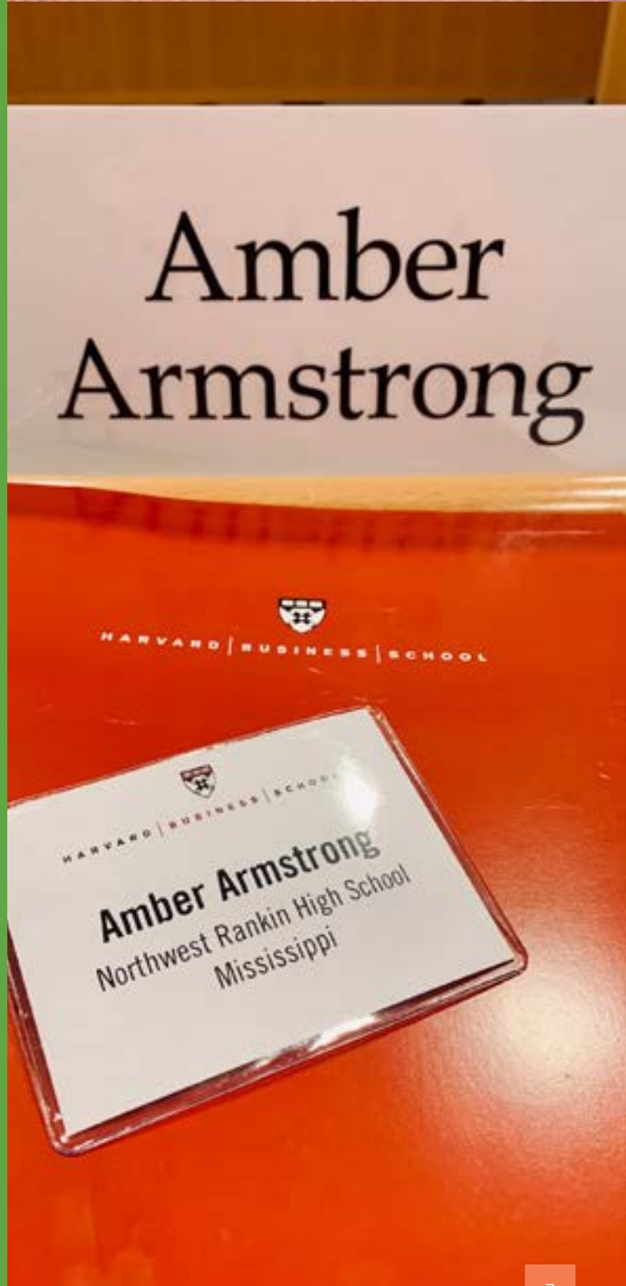
Northwest Rankin High School US History teacher Amber Armstrong recently spent time in Cambridge, Massachusetts, at Harvard Business School. There she was learning about the Case Method Project and how to implement that into her US History classroom. The case method has been used at Harvard Business School for decades, but in 2013, this method was introduced into history courses by professor David Moss. He saw this method valuable in helping students understand historical figures and key court decisions that have shaped American history.

During the workshop, Amber participated in a series of instructional sessions led by HBS professors, discussed issues and cornerstone cases with educators from all over the country, and heard from a panel of teachers who currently use this method in their classrooms.

Amber is excited to incorporate a few of the cases and strategies into her classroom this year!

If you are interested in learning more about the Case Method Project, visit the link below.

https://www.hbs.edu/case-method-project/about/Pages/default.aspx



THE EDUCATOR'S PLAYBOOK

by Jana Comer

"Gun Flex Right Stack 394 Dragon Smoke Kill Turbo Sucker Right," New Orleans Saints Coach Sean Payton calls to quarterback Drew Brees through the headset. With this direction, Brees assertively commands his offense to run a very specific skill set in which Brees is in the shotgun, the Y receiver is flexed out a little bit from the line of scrimmage, and the two receivers on Brees' left side are essentially stacked on top of each other in the slot. The "394" is the protection. The "3" signifies that it's a three-step drop, which Brees tells the offensive line to be "quick and aggressive." And the "94" signifies a max protection, so everyone should be able to block long enough to at least get the ball off on a pass play. Dragon Smoke is a route concept that is a quick pass designed to beat a blitz. Kill: That's the key to this play—the word that signifies Brees is calling two possible plays in the huddle. If he yells, "Kill!, Kill!, Kill!" before the snap, he's switching to the second play.Turbo Sucker Right: That's the run play Brees switched to when he saw the defense giving the look he wanted. "Turbo" means the Z receiver went in motion from the left side to the right side. And "Sucker" means it's a misdirection play that looks like Brees might hand off to the Z receiver on a jet sweep as he comes across. Instead, Brees hands the ball to Ingram, who runs up the middle between the right guard and the right tackle. This particular occurrence was not incidental. It occurred through a series of well thought out hypotheses of data sets, intentional learning targets, clear communication, and repetitions of scenarios.

Football is a game of complex strategies and tactics; however, the basic strategy that a football team devises for a game is the game plan. Each team has hundreds of diagrammed plays and strategies that are worked out and decided on ahead of time for pre-determined situations. During the game and at half time these strategies are assessed and adjusted based on situations and performance. Often how well these adjustments are made will determine the outcome of the game.

Similar to a football team's game plan, educators have game plans that are equally complex in executing to achieve a desired outcome--meaningful student learning. As always, there is an arsenal of instructional strategies and resources available for certain lessons and concepts; nonetheless, being intentional and effective with the components of this arsenal is crucial to the success of the students in our classrooms just as the proper execution of plays is critical to the football team's success on the field.

Sam Williams, head football coach at Pelahatchie High School, articulates the importance of planning when he explains, "Planning is the most important part of our job as a coach. Much like the classroom, your players will perform to their level of training.If we are not intentional with our motives and equipping students with the knowledge they need, they will not be able to react and perform in other situations." While lesson plans often get a bad reputation as another thing that has to be done to turn in to administrators, they are much more important than a checkbox on a to do list. Indeed, teacher's lesson plans are their proverbial playbook. The lesson plan is the tool effective teachers use to ensure that each part of a lesson supports a specified learning objective and to ensure that the activities and time spent will lead students to master content and skills. Much like a coach, effective teachers use lesson plans as a reflective opportunity to make decisions on what activities will best meet the needs of students and to predict/plan reactions to student challenges.

Playbooks are more than just simple X and O documents. They serve a purpose—a mission statement of sorts. They explain what the team is going to do, why they're going to do it, and how it's going to be carried out. A great plan is nothing if it cannot be communicated and taught to players—the same can be said for the students in our classrooms. As educators, we can't depend on parking lot planning by throwing a Hail Mary (unless you're Aaron Rodgers) and hoping for the best in order to provide students with what they need.

Sure the Xs and Os look great and work perfectly on a whiteboard; however, in real time, that may look differently for a variety of reasons. Because of this, sometimes we have to call an audible and readjust split-second in order to move forward. Just as Brees makes a last minute adjustment based on the formation of the defense, we must make those adjustments in our instruction by scaffolding or differentiating instruction based on our students' interests and needs.

Just like coaches on the gridiron, successful teachers use different forms of assessment to drive instruction on a regular basis. They assess their entire class daily to find out what students need (formative assessment). They then implement ideas, strategies, and new content to meet each individual student's needs. Each instructional period is broken down in order to teach students new content in order for them to be successful on the next test, summative assessment, or end goal as set forth by the teacher.

Teachers and coaches alike work with students that have a very wide range of skill sets. It's the job of the teachers and coaches to capitalize on strengths and address areas of weakness in order to help students/players grow. With that being said, intentionally planning sequences of instructional activities that are conducive to all students' needs is crucial. Without a logical and intentional sequence, it is often difficult for students to make the most meaningful connections that will spark and foster the learning process.

With the current emphasis on high-stakes testing, coverage sometimes unintentionally overshadows depth when it comes to classroom instruction. We don't always feel that we have an adequate amount of time to hit the "instant replay" to see where misconceptions may arise. If we cannot take the time to go back and view the "controversial play" or student misconceptions though, we are setting our students up for failure. As the coaches of our teams, we have to be able to slow down and adjust while continuing to reinforce a growth mindset in order to make sure our students are mastering the concepts needed to be successful for game day and beyond.

GAME PLAN

The breakdown

Football	Instructional Planning	Philosophy
• Watching Film	• Analyzing data to determine goals and instructional standards	• WHAT are we going to do?
• Creating a playcall sheet based on information from watching film	• Determining learning targets/intentions • "I can" statements	• WHY are we going to do this?
• Practice • Run plays • Like groups	• Modeling new concepts • Revisiting fundamentals • Differentiated instruction	• HOW are we going to accomplish this?
• Scrimmage	• Application • Practice • Formative assessment	
• Practice (again) based on observations from scrimmage • Re-run plays • Like groups	• Re-teach • Remediation • Enrichment	
• Walkthrough	• Review	
• Game Day	• Assessing mastery of desired outcome • Summative assessment • Final assessment • Benchmark/MAAP	

THE EDUCATOR'S PLAYBOOK RESOURCE GUIDE

Resources

Pacing Planning Template
Daily Lesson Plan Template
Instructional Strategy PlayCall Cards
32 Research-Based Instructional Strategies

Articles

ASCD Article: How to Plan Effective Lessons
Lesson Plan Design
Strategies for Effective Lesson Planning

INSTRUCTIONAL SEQUENCE MATTERS

The Power of the Explore-Before-Explain Mindset in Science

by Lorie Yates

Memorizing Everything, But Knowing Nothing

"I discovered a very strange phenomenon: I could ask a question, which the student would answer immediately. But, the next time I would ask the question—the same subject, and the same question, as far as I could tell—they couldn't answer it at all! For instance, one time I was talking about polarized light, and I gave them all some strips of polaroid. We first took two strips of polaroid and rotated them until they let the most light through. From doing that we could tell that the two strips were now admitting light polarized in the same direction—what passed through one piece of polaroid could also pass through the other. But then I asked them how one could tell the absolute direction of polarization, from a single piece of polaroid? They hadn't any idea. I knew this took a certain amount of ingenuity, so I gave them a hint: "Look at the light reflected from the bay outside."

Nobody said anything.

Then I said, "Have you ever heard of Brewster's Angle?"

"Yes, sir! Brewster's Angle is the angle at which light is reflected from a medium when an index of refraction is completely polarized."

"And which way is the light polarized when it's reflected?"

"The light is polarized perpendicular to the plane of reflection, sir."

Even now, I have to think about it; they knew it cold!

I said, "Well?"

Still nothing.

They had just told me that light reflected from a medium, such as the bay outside, was polarized; they had even told me which way it was polarized.

I said, "Look at the bay outside, through the polaroid. Now turn the polaroid."

"Ooh, it's polarized!" they said.

After a lot of investigation, I finally figured out that the students had memorized everything, but they didn't know what anything meant. When they heard "light that is reflected from a medium with an index," they didn't know that it meant a material such as water. They didn't know that the "direction of the light" is the direction in which you see something when you're looking at it, and so on.

Everything was entirely memorized, yet nothing had been translated into meaningful words.

This was an observation made by Richard Feynman, American physicist who worked on the Manhattan Project, received the Nobel Prize in Physics in 1965, and served on the panel that investigated the Space Shuttle Challenger disaster. In his book, *Surely, You're Joking Mr. Feynman* (Adventures of a Curious Character), he describes numerous situations, such as the one above, where college students could not make the connection between information they had memorized and observations or investigations. And, sadly, it is one we sometimes experience ourselves as secondary science teachers.

Explore-Before-Explain Mindset

How can we bridge the disconnect between basic content and complex concepts, between science understanding and science practices? How can we help students see that science is not just a body of information—static words and diagrams on paper—but an on-going process of finding information to explain the world around us?

Research shows that students can accomplish remarkable advances in scientific reasoning with effective instruction and firsthand experiences. If we want to produce more powerful learning experiences for our students, then we must ground our practice in current research on teaching and learning.

The explore-before-explain mindset can be traced back to research around the constructivist theory to learning, which suggests that people construct knowledge and meaning from experiences. With the explore-before-explain mindset, teachers plan student-centered, inquiry-based learning sequences in which students construct new knowledge based on their direct encounter with science phenomena (rather than memorization of facts), and engage in metacognition. This is consistent with research on how people learn (NRC 2010).

In Patrick Brown's book, *Instructional Sequence Matters*, he states that, "Science instruction is best carried out with intentionality. A theoretical framework for how you design your lessons—that is your mindset— should be informed by current research...Being clear up-front about what the most optimal learning looks like is the first step in becoming an explore-before-explain teacher."

Two popular contemporary approaches that promote explorations before explanations are the POE Model (Predict, Observe, and Explain) and the 5E Model (Engage, Explore, Explain, Elaborate, Evaluate). Although both models use explore-before-explain sequences, they are not the same approach. This article will look more closely at the 5E Model.

The 5E Model

For many teachers who have primarily learned from and used a lecture-based teaching approach, considerations of order have been primarily about the order of ideas—not of learning experiences (Tanner 2017). Consider the last class session you taught. Did you lecture? Did the students engage in a small group discussion? Did you introduce new terms or ideas? Did students take a quiz or exam? Did they conduct an experiment? Did they answer one or more questions in writing?

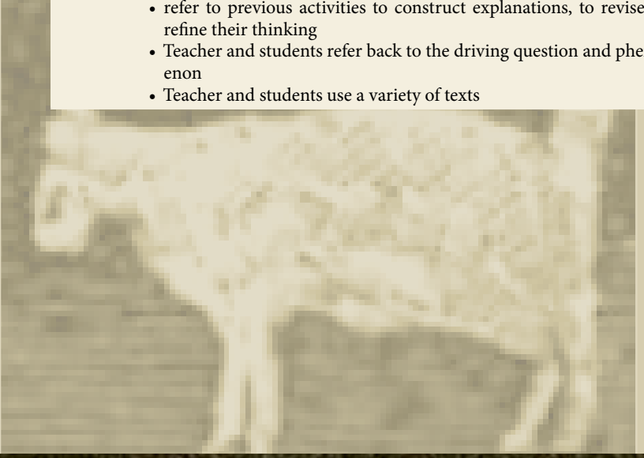
Now, think about the order in which these things happened. Did you specifically choose to have things happen in a particular order?

The 5E model provides a guideline for designing a meaningful sequence of learning experiences for students. This model was designed by science educator Roger Bybee and his colleagues as part of the Biological Sciences Curriculum Study. The 5E model is an attempt to translate what we know about how humans learn—from cognitive science, psychology, and science education—into a tool that can guide instructors in planning effective learning experiences for students (Bybee 2009).

The table briefly describes each phase of the 5E Instructional Model and provides possible resources and strategies for carrying out each phase.

Note: Before starting this learning cycle, you should have identified the standards/performance objectives for the learning cycle and broken the standards/objectives into specific goals of what students must know and do. By doing this first, you will be able to identify the types of assessment items and questions you will need to drive and assess the learning cycle. Formative assessments and feedback are essential to all phases.

	Possible Teacher and Student Behaviors:	Possible Strategies/Resources
ENGAGE	• The teacher: • uses scientific phenomena and driving questions to create interest • elicits responses that uncover students' current knowledge about the concept/topic The students: • ask questions such as: Why did this happen? What do I already know about this? What can I find out about this? How can this problem be solved • show interest and are engaged	• Scientific Phenomena • Driving Questions • Discrepant Events • Class Polls/Surveys • Anticipation Guides • Visit a webcam for phenomenon • Gallery Walk
EXPLORE	• The teacher: • encourages students to collaborate • observes and listens as students work • asks probing questions to redirect students' investigations when necessary and to formatively assess student progress • provides time for students to persevere through problems The students: • test predictions and hypotheses • form new predictions and hypotheses • discuss research and problem solving with others • record observations and ideas; collect data	• Laboratory investigations • Online simulations • PhET; Gizmos; Virtual Labs • Create models • Stations/Centers Rotations • Solve a problem using the Engineering Design Process • Research using a variety of texts such as articles from Newsela, videos from NBC Learn, sections from the textbook, etc.)
EXPLAIN	The teacher: • asks students to explain terms/concepts in their own words • asks students for justification (evidence) and clarification • provides definitions, explanations and various representations (analogies, diagrams, formulas, etc) • provides supporting content not easily discoverable or accessible from hands-on investigations The students: • explain possible solutions or answers to other students • listen critically to other students' explanations • ask questions to better understand explanations • refer to previous activities to construct explanations, to revise and refine their thinking • Teacher and students refer back to the driving question and phenomenon • Teacher and students use a variety of texts	• Analyze and interpret data • Socratic discussions • Laboratory Reports • Lecture • Note-taking (Cornell notes) • Modeling • Guided Practice • Student Presentations • Gallery Walk • Use of a variety of information texts • Jigsaw • Concept Mapping
ELABORATE	The teacher: • expects students to use vocabulary, definitions, and explanations provided previously in new contexts • provides opportunities for students to apply concepts and skills to new situations The students: • use previous information to ask questions, propose solutions, make decisions and/or design further investigations • draw conclusions from evidence • Teacher and students address initial phenomenon and/or driving question with the ideas and data they have gathered during the learning cycle	• Design and conduct an investigation • Revisit previous investigations or claims; rebuttals • Solve real-world problems with investigations or through the Engineering Design Process • Identify questions for further exploration • Create models to explain concepts in a new way
EVALUATE	The teacher: • assesses students' knowledge and/or skills • looks for evidence that students have changed their thinking • allows students to assess their own learning and skills The students: • check for understanding among peers • answer open-ended questions by using observations, evidence, and vocabulary from all learning • demonstrate an understanding of concepts and/or skills • evaluate his/her own progress toward the learning goals	• Traditional summative • Performance Assessment • Integrate Science Practices in Tasks • Classroom Tasks • Written product • Create a model



Adapted from Explanation of the 5E Instructional Model; WestEd NGSS Early Implementers

So, let's return to the last class/unit you taught. What different activities took place? Lecture, small group discussion, online quiz game, lab investigation? In what order did they occur? How well does that order reflect the 5E model? You may already be using many of the elements of the 5E model. In what ways might you adjust your usual classroom plan to bring the order of things more in alignment with the explore-before-explain mind-set?

The Power of the Explore-Before-Explain Mindset

The most pressing teaching dilemmas in our classrooms—student motivation, student retention of information, student understanding of difficult concepts—may seem unrelated to the order in which things are happening; however, what we do first, second, third, and so on can hugely impact student learning (Tanner 2017). The teacher is the key to change and learning in the classroom. In fact, the single most important factor affecting student academic gain is the teacher. Some teachers mistakenly believe that factors outside their control—such as family income, parent education levels, and race or ethnicity—are acceptable explanations for many of their students failing to learn science. On the contrary, effective teachers can cumulatively have a greater impact on educational outcomes than those factors (O'Brien 2010). Whether you incorporate the 5E model, or other explore-before-explain strategies, starting the journey of becoming an explore-before-explain teacher will help you create the best possible learning experiences for your students. Your students will benefit from more robust and engaging lessons, and these instructional sequences will take student learning in your classrooms to a whole new level.

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ACT Score Report

by Montgomery Hinton

Each student receives a detailed score report when he or she takes the test. Reading this score report is the most important of what is a complex piece of the puzzle. Interpreting this data is the way to get the most bang for your buck. Improving your ACT and saving thousands of dollars in tuition is easy.

By using your score report you can easily locate the skills that are required for improvement. With the recently revamped RCSD ACT web page, you can easily find pages and pages of skill-based information so that you can conquer the test.

In the English section, two categories are based on a student's reading ability: Production of writing and knowledge of language are both reading categories. If you need help reviewing these particular skills, click here. The third category, Conventions of Standard English, is really just grammar. It is an easy category to increase your score through rigorous practice. Click here for practice that will help build this skill. Reading and high vocabulary are needed. Vocabulary builders are very important. Click here for vocabulary builder.

In the math section, there are three basic question types. Several categories are cross-covered. Much of the math section covers basic skills that often require remediation. Algebra skills can be accessed here. Geometry skills can be accessed here. Trigonometry skills can be accessed here. Other skills can be accessed here. Many people struggle with the exact way to use your calculator. Click here to have some videos that will help with your calculator.

In reading, the higher your reading level the higher your score can be. Work hard on key ideas and details. The general ACT reading page can be accessed here. This skill alone will gain you 20-22 composite points on every ACT. For practice, click here. Seventy-five percent of the ACT reading is composed of non-fiction passages. The district has purchased Newsela so that students can read routinely. The district page on non-fiction passage help can be located here. Fiction help can be located here. Overall reading comprehension help can be located here.

The ACT science section is the most baffling. Often, people are terrified as passages contain the most off-beat information that seems worlds away from the information that they have learned in school. While the ACT science section is real world science, it is a low knowledge-based (yes, you do need to know some things) test. The skills are practicable. For the general ACT science page, click here. Need help with charts and graphs? No problem. Go here! How about research summaries? Go here! How about that pesky conflicting viewpoints? We have you covered right here.

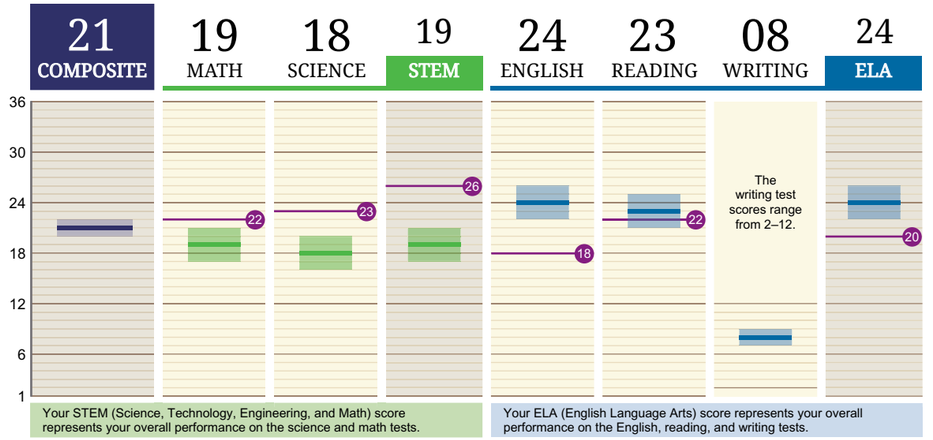
We have plenty of practice tests. Head here. Practice and then succeed.

We look forward to seeing the Best come from your work.

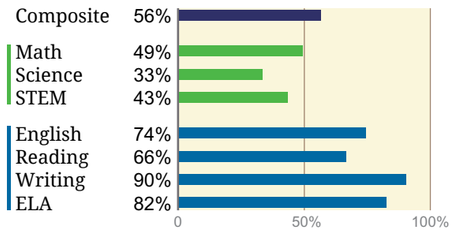
ANN C TAYLOR (ACT ID: -54116290)
WHEAT RIDGE SR HIGH SCHOOL (061-450)
TEST DATE: APRIL 2020

The ACT®

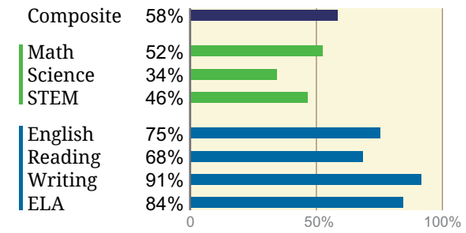
Student Report



US Rank



State Rank



Your Score
Your Score
Your Score Range

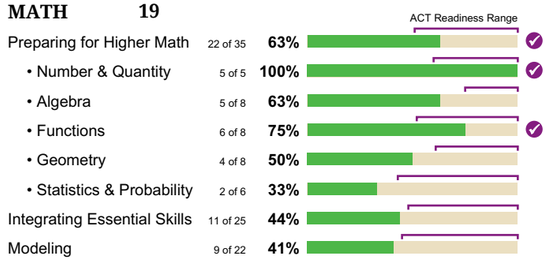
ACT College Readiness Benchmarks
Readiness Benchmark
If your score is at or above the Benchmark, you have at least a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in specific first-year college courses in the corresponding subject area. There is currently no Benchmark for writing.

Your Score Range
Test scores are estimates of your educational development. Think of your true achievement on this test as being within a range that extends about one standard error of measurement, or about 1 point for the Composite and writing scores, and 2 points for STEM, ELA, and the other test scores, above and below your score.

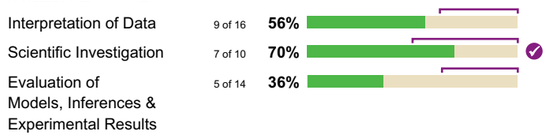
US & State Rank
Your ranks tell you the approximate percentages of recent high school graduates in the US and your state who took the ACT® test and received scores that are the same as or lower than your scores. For example, a rank of 56 for your Composite score means 56% of students earned that Composite score or below.

Detailed Results

MATH 19



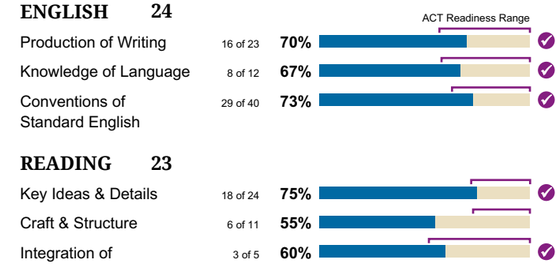
SCIENCE 18



ACT Composite Score: ACT math, science, English, and reading test scores and the Composite score range from 1 to 36. For each test, we converted your number of correct answers into a score within that range. Your Composite score is the average of your scores on the four subjects rounded to the nearest whole number. If you left any test completely blank, that score is reported as two dashes and no Composite score is computed.

ACT Readiness Range: This range shows where a student who has met the ACT College Readiness Benchmark on this subject test would typically perform.

ENGLISH 24



READING 23

Understanding Complex Texts: This indicator lets you know if you are understanding the central meaning of complex texts at a level that is needed to succeed in college courses with higher reading demand.

WRITING 08

Ideas & Analysis	8
Development & Support	8
Organization	9
Language Use & Conventions	8

If you took the writing test, your essay was scored on a scale of 1 to 6 by two raters in each of the four writing domains. These domains represent essential skills and abilities that are necessary to meet the writing demands of college and career. Your domain scores, ranging from 2 to 12, are a sum of the two raters' scores. Your writing score is the average of your four domain scores rounded to the nearest whole number. To learn more about your writing score, visit **www.act.org/the-act/writing-scores**.

COMMUNITY IS KEY

by Paula McClain

Partnering with our local community is vital in education. After all, they are the families who have children in our schools, they support us tangibly by providing items for things like Project Graduation and Teacher Appreciation Days, and they are a wealth of information and help that we need. How we go about doing this is important. We don't want to tap out our resources; yet, we need them in order to help further what we do.

So, what are we to do? How do we partner with our community businesses without asking too much of them? The answer is easier than you think:

Give with the expectation of getting nothing in return.

Help others with no ulterior motives.

Northwest Rankin High School is a great example of how this is happening each and every day. They have a class called "Art and Community." This is a creative way to approach both the task of educating students and having them give back to their community at the same time.

The teacher, Melissa Magee, contacts local businesses (or sometimes they contact her, as was the case with Sheriff Bryan Bailey) and tries to find ways her students can get involved and do something for that business. After she has found a potential client, the students take a field trip to the business. During that time, they measure the space if needed and interview a representative for more information of what they specifically need or desire, and then they get to creating rough draft sketches. The class then must come together and discuss their own interpretations and how their design meets the needs of the client. Once a design has been settled on, they start to work! Every student is involved in the entire process; I think this is vital for the success of the program and students.

This approach really joins life skills and learning in the best way possible! They must find a client, interview the client to find out the needs, and then design and complete the project to fit the needs of that client. They are also working as a part of a team to solve the problems or meet the needs of the client.

#realworldskills

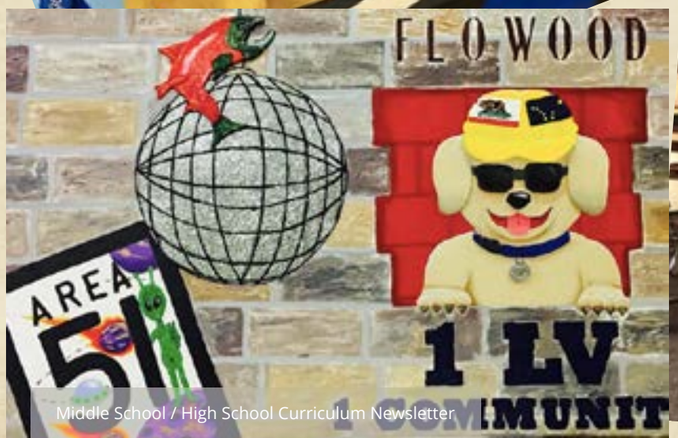
The students have done things like: paint banners and ballet shoes to auction off for *The Nutcracker*, created artwork for Raising Canes, and painted banners for the Sheriff's Department.

These Cougars are giving back to their community by providing services for them at no charge and they are building bridges that strengthen the bond between the school and the local community.

What more could we ask for?!

I know not all campuses can do what Northwest Rankin High School is doing. However, we can all do something. We can give back to our local businesses that do so much for us in our own ways. Maybe it's hosting a toy drive, providing face painting at a children's event in town, volunteering to help out with a 5K, or collecting toiletry items.

We cannot do everything, but we can do something.



Get Lit(eracy) with Math

by Rhonda Kilgo

Literacy and mathematics are often thought to be unrelated. In fact, some would say that literacy cannot be practiced in the math classroom. However, how many times do students struggle with word problems due to lack of reading comprehension skills? How often do teachers hear, "I can do the math; I just can't set it up?" With the implementation of the Mississippi College and Career Readiness Standards, much of what students are being asked to do is to apply the mathematics they are learning. In 2001, the National Research Academy defined the 5 strands of mathematical proficiency (NCTM, 2014):

- Conceptual understanding
- Procedural fluency
- Strategic competence
- Adaptive reasoning
- Productive disposition

Literacy strategies in mathematics, like other content areas, focus on the use of reading comprehension, classroom discourse, and writing. Applying some basic literacy strategies in mathematics supports all of the strands of mathematical proficiency, and not using any of these could prevent students from growing in all strands except procedural fluency. Students are often asked to exhibit their mathematical proficiency through word problems, performance tasks, or other problem types that require them to read, talk about, and explain the mathematics. The ability to read, speak, and write like a mathematician is learned. Students need practice in all of these in order to retain and apply new material. When given the opportunity to practice literacy strategies in mathematics, students begin to see literacy and mathematics as interconnected instead of each in isolation, and long lectures are no longer necessary (Roepke & Gallagher, 2015).

According to Beaudine (2018), a 1999 position statement from the National Council of Teachers of English (NCTE) proposes that "students need opportunities to explore modes of literacy -- reading, writing, speaking, and listening -- and to see how these literacies work in concert to support one another." The table shows a sample of strategies that teachers can use to address these modes and gives ideas of how these can be implemented in the math classroom.

Literacy Mode	Strategy	Math Classroom
Reading	**Infer**	**Anticipation Guides**
	Summarize	**Literature Circles**
Writing	**Summarize**	**Complete the Sentence**
	Analyze	**Exit Slips**
Speaking	**Use Appropriate Vocabulary**	**Think Aloud**
	Compare and Contrast	**Compare and Contrast**
Listening	**Restate**	**Restate**
	Summarize	**"I Used to Think"**

Anticipation Guides (Roepke & Gallagher, 2015): Students complete these prior to reading about and learning the new material. They use their prior learning to anticipate what they will be asked to do in the new lesson.

Literature Circles (2015): The text on new material can be divided between groups of students where each student within the group is given a role. The students must prepare for their role outside of class. These roles include the discussion director who creates a discussion about the text which includes examples and problems; the summarizer who is responsible for a brief summary; the vocabulary enricher who creates a handout with the vocabulary from the lesson; and the webmaster who creates a graphic organizer. These roles are then carried out in class.

Complete the Sentence (2015 & Altieri, 2009): Students are asked to complete a sentence about the lesson such as identifying a certain number of important ideas about the topic or creating an example and a nonexample.

Exit Slips: Students answer "why" or "how" questions instead of simply working problems. These could also include explaining the steps to a problem in a way that a classmate can follow the steps to work the problems.

Think Aloud (Trocki, Taylor, Starling, et. al, 2014/2015): To introduce a topic, the teacher talks through how he/she would approach a problem explaining challenges and questions which will need to be answered. Each part of the lesson is discussed prior to writing or working examples. This also allows the teacher to model the use of mathematical vocabulary. These should be carefully planned by the teacher.

Compare and Contrast: Students are asked to compare and contrast multiple parts of a lesson. This can include different answers, different methods for working problems, and different misconceptions.

Restate: Students are asked to restate what the teacher or other students say when learning new material.

"I Used to Think, but Now I Know" (Altieri, 2009): Students are asked to describe something that they used to think about a topic or problem, and then describe what they now know to be true after participating in the lesson.

We've all heard that "math is another language," and while it is true that mathematics has a language of its own, using literacy strategies already being practiced in other classes begins to open the door for students to communicate fluently about mathematics. When math teachers include literacy strategies in their classes, students begin to gain confidence in their abilities to do the mathematics. This new understanding can help take the mystery out of the math and lead to a more mathematically literate generation of students.

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Recruiting the *BEST*

by Sheri Blankenship

Yes, it IS true that there is a national teacher shortage, but when you experience days like September 17, 2019, you are hopeful for the future of education! Even while the debate is swirling nationally about how to address this issue, Rankin County is working innovatively in our own backyard with the RCSD Teacher Academy.

Now in its third year, the RCSD Teacher Academy program has grown from an original twenty-four students in three schools to seventy-five students in five middle and high schools, and these students are getting the opportunity to have a wide-range of educational experiences during their high school years that go far beyond the eyes of a student.

One of these experiences was our 2nd annual RCSD Teacher Academy Field Day Experience where all five of our schools gathered together at Richland High School for a day of observation, mini-professional development sessions, and some teacher swag! Teacher Academy students from were divided into rotation groups that represented each of the schools in order to allow the students to meet others who are also interested in the field of education from across our district.

Each group rotated between Richland Upper Elementary School and Richland High School where they were able to observe classrooms at the elementary, middle school, and high school levels. Additionally, groups rotated to experience a mini version of two professional development sessions -- one on Classroom Management and Student Engagement and one on Building a Classroom Community-- and to a panel discussion involving other educational roles. The panel included a principal, a school counselor, a media specialist, and an English Language Learners Teacher who answered questions about their jobs posed by the Teacher Academy students.

While the entire day was a special experience for everyone involved, one of the best parts was the reflection portion at the end. All 72 students gathered in the RHS library and were asked to share with a small group about their morning's experiences, including the most exciting/interesting thing observed as well as discussing things they had learned from their rotations and then to draw some conclusions about teaching from this experience. Student groups shared out with the whole group conclusions such as the following: "When students are involved in what they are learning in the classroom, behavior is much better" (special needs experience reflection here - ask Angy) Hearing such powerful conclusions and watching the camaraderie grow among these young people who are deeply exploring what it means to teach and to serve in this capacity as possibilities for their chosen vocation was inspirational to see.

We know there is a long way to go in addressing the scarce number of students choosing this to go into this occupation on a national and a state level; however, RCSD is actively seeking ways to engage our own young people and to recruit the BEST future educators!

ADVOCATE, MOTIVATE, AND INSPIRE

by Nick Thomas

Teachers don't make any money. Why would you be a teacher? Isn't teaching more of a hobby than a job? As educators, we hear these comments all the time. This type of mentality only fuels the fire for the biggest problem we face as a district, state, and nation--the teacher shortage. The worst part is, there are teachers in various schools who unintentionally become the biggest obstacle when it comes to advocating for a career in education. It can be frustrating, for those of us passionate about this profession, to listen to so many people speak this way about something that creates other careers. In my opinion, we need to do a better job of encouraging our students to pursue a career as an educator when they show interest and do what we can to nurture their dreams if they choose this path. Essentially, we need to do three things: advocate, motivate, and inspire.

ADVOCATE

Part of the problem we face as teachers is feeling as if no one advocates for us. This causes many of us to adopt negative attitudes toward the very thing that we have devoted our professional lives to. We need to escape this type of thinking and remember why we became teachers in the first place. This is the first step in promoting our profession to our students. As much as we feel forgotten about, we need to advocate more for ourselves. If students ask us questions about being a teacher, the last thing that needs to happen is a nonchalant "huff and puff" and a generic answer to the question. We need to be more positive when interacting with potential teachers at such an early time when they are thinking about joining the field. This is the time to show them our passion for the profession. We have to do our part to promote our careers to students who want to become our colleagues.

MOTIVATE

What are we doing to motivate our students to become teachers? True, much of motivation does land on our kids to want to enter our profession. However, it is our responsibility to motivate them and encourage a career in education, especially if we can see their potential to excel as an educator. As teachers, we get to know our students on a personal level. Our job should be to keep the students that are interested in the field of education motivated to stay on their path. Ask them questions, encourage them to stay on their path, and motivate them to persevere even when what they hear about teaching is negative. The responsibility of keeping students motivated to pursue education as a career falls in our hands.

INSPIRE

Arguably the most important responsibility we have as teachers is to be an inspiration for our students. Yes, students need to have some level of mastery of the content we teach in order to move on with their lives past our class, but if we do a terrible job of inspiring our students, they will not grasp our content at all. The same applies when promoting our profession. As I have mentioned before, if we come to class with positive energy, our students will feed off of that. They will see our love for teaching and quite possibly be inspired to pursue the same path. If we do not do our job to inspire the students in our rooms, then we risk not having quality educators for the future of our communities.

There are many of us who do these things in our classrooms. We are advocates for our profession. We motivate students to become teachers, and we inspire them to stay on the path of becoming a teacher despite what the negative things they hear. But we can still do more. Whenever a child shows an interest in becoming a teacher, the last thing we need to do is to deter them from that. We need to do everything in our power to nurture these potential colleagues and guide them in the direction of the most important profession there is: teaching.

Technology Enhanced Lessons

Where Should We Be?

by Stephanie Cotnam

21st Century classrooms look very differently than they did 20 years ago. I remember my high school classroom with its simple chalkboard and overhead projector. The only computers in the school were located in the library and the office. The largest amount of technology at my fingertips was my TI85 graphing calculator and my very large Nokia cell phone with the most amazing video game...snake! The amount of technology available to our 21st Century learners is far from my high school experience. Interactive panels, document cameras, digital signage, broadcasting rooms, 1:1 Macbooks, and cell phones that rival most computers we had 20 years ago; the list goes on and on with everything now available to our kids. Now that we have all this tech, what do we do with it, and where should we be headed?

Now is the most important part! You just thought learning how to use Canvas and Google Docs was important to tech integration, but it is only the first step! The true test of your tech ability comes to self-analyzing your lessons to see if learners are truly benefiting from that great, new tech tool. How can we do this? Well, I am sure you have heard us talk about SAMR. Just in case you missed it, here is a little reminder. Ruben Peuntedura introduced his model in 2006 to assist schools reflect on technology integration in the classroom (Portnoy, 2018). His theory was divided into two main areas: technology enhancement and technology transformation. In the enhancement process, teachers substituted or augmented current lessons to incorporate the use of technology. While in the transformation process, teachers create assignments that are modified or redefined with the use of technology.

Our lessons can reach Peuntedura's level of enhancement very easily. The fact that we use Macbooks alone is a form of substitution for pencil and paper. Canvas is a form of augmentation allowing our students to turn in assignments digitally with instant feedback. However, is that the extent of our Macbook? I sure hope not! Looking at Peuntedura's chart, we see that there are two more levels, which use technology to transform the lessons at hand. Modification and redefinition of tasks incorporate technology in a way that makes the assignment impossible to complete without the use of a device. Let's take a look at each level of the SAMR Model.

Substitution is using technology to complete a task that could be completed without the computer. For example, instead of writing an analysis on paper, you would type it in Google Docs. The assignment is the same with or without the technology. All you are changing is the mode that it is completed. Augmentation, however, takes that same analysis paper and adds a new element with the technology. When a student uses Google Docs they are also able to use the Explore function. The explore function allows them to cite sources directly into the analysis and formatted according to APA or MLA style. This was not automatically possible with pencil and paper, but the integration of technology allowed it to occur.

Let's look at modification. Modification allows you to transform your lesson. Students could take the analysis they typed and cited using the first two SAMR steps and share with their peers. Students can peer evaluate and edit each others papers virtually. In addition to this, students could create a Flipgrid discussing their analysis papers. This allows videos about the topic to be created which can be used for clarification, reflection or even review before an assessment. Lastly, redefinition incorporates technology to allow for a new task that was not possible without the tech integration. Students can create newscasts or videos pretending to be the people that they analyzed in their research paper. The possibilities are endless.

When looking at the SAMR model, it helps to think of it as a ladder. When we paint a room, we go up and down the ladder as we make our way around the room. We do not stay on the first rung and forget to paint near the ceiling. We also have to go down the ladder to paint the baseboards. This is how we need to think of our technology integration. Sometimes we will use our computer for basic needs like typing; however, as we work our way through content, we should be moving our way up the SAMR ladder. Don't get stuck in a substitution rut; instead, find new ways to transform your technology usage.

RCSD's goal is to go beyond the level of substitution and augmentation in the classroom. While these are great first steps, we need to move beyond the surface and dig deep. With this in mind, here are a few ways to move an assignment from substitution all the way through redefinition.

◄ *Puentedura's SAMR model with examples: Image taken from (Portnoy, 2018)*

Lesson

Understanding Shakespeare

Taken from: https://edofict.wikispaces.com/SAMR+Examples and modified.

Original Assignment: Read a Shakespeare play in traditional printed format.

Substitution

Read Shakespeare Texts Online

Augmentation:

Use online dictionaries, study guides, history sites, to supplement reading.

Modification

Use multimedia resources like text, audio, and video tools to jointly construct knowledge, learning, and understanding of a portion of a play, or a character, as a group project.

Redefinition

Answer the Question, "What did the culture of the time have on the writing of Shakespeare's plays" using a Concept Mapping tool, construct a mind map demonstrating key elements through words and images.

Use SAMR to reflect upon your technology use in the classroom and examine how you can take the next steps to transform your technology implementation. If you need any ideas or assistance, please feel free to contact me or book me.

Reminders

Don't forget to turn off your computer weekly. Restarting will prompt updates that keep your computer running smoothly.

If you are having problems, please put in work orders. We can help with spotty wifi, websites not loading, smart boards, and more!

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Brandon
Florence
McLaurin
Northwest
Pelahatchie
Pisgah
Puckett
Richland

Rankin County School District

TRADITION OF EXCELLENCE