Springfield Middle School
Robertson County Innovation Academy

715 5th Avenue West ♦ Springfield, TN 37172 ♦ Phone (615) 384-4821
Dr. Grant Bell, Principal ♦ Ms. Amanda Mounts, Asst. Principal ♦ Mr. Patrick Carneal, Asst. Principal

"We are EPIC!"

The Jacket's Buzz

November 12, 2018

"Providing a well-lit path in the pursuit of purpose and happiness."
"Every single day, we will strive to ensure that everyone is safe and respected;
and that ALL scholars are responsible for working to master ALL standards."

"Education is the movement from darkness to light."

Allan Bloom

Monday:	Veteran's Day
	Basketball vs Coopertown 4:30
Tuesday:	Faculty Conversation 7:30
	Drama Field Trip to Children's Theatre
	Wrestling @ Sycamore 5:00
	Basketball @ West Wilson 6:00
Wednesday:	Wonderful Wednesday
Thursday:	Miracle on 34th Street (Elementary Students) 9:00 AM & 12:00
	Basketball vs Greenbrier 4:30
	Miracle on 34th Street (Th, Fr & Sat) 7:00 PM
Friday:	Vol State College Campus Visit (7th grade)
Saturday:	Wrestling MCAC Duals/Team Championship @ GHS

Bus Duty:

Monday	Tuesday	Wednesday	Thursday	Friday
Language Arts	Related Arts	Math	Social Studies	Science

Yellow Jacket Basketball

The Yellow Jackets remained undefeated following games against Richview, Heritage and Jo Byrns. The Lady Jackets picked up a win against Jo Byrns.

Principal Choice Awards
Recognizing Quality and Meaningful Scholar Work

Jacob Barnett representing Panama at Middle School Model United Nations
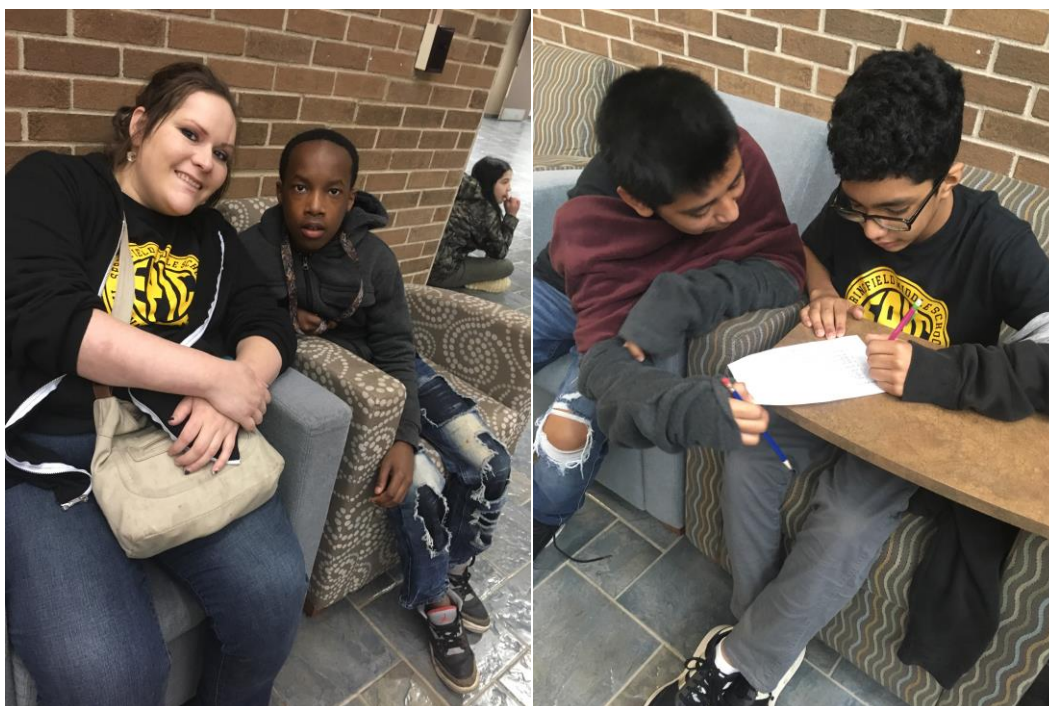won a Best Delegate Award! So proud of him!
~Sarah Hall- RISE Teacher~

Benito Cabrera Romero (right) with a friend for increasing scores
to be promoted from STING time! Pizza with a Friend!
Shawn Jones- Instructional Coach

VOL STATE
COMMUNITY COLLEGE

7th grade scholars toured the Vol State campus last week.
"Painting the picture" of their future!

Staff Member of the Week

Name : Maureen Henderson   Grade : iA 6-8   Subject: STEAM Magnet Coordinator

Hometown: Greenbrier

Family: son, Jacob 12 years old

Education: BA in Psychology, K-8 Elementary Ed, Masters in School Counseling PreK-8

How did your career lead you to Springfield Middle School?
I have been an educator for twenty years in Robertson County. I taught 7 years at Greenbrier Elementary, and prior to that 12 years at Greenbrier Middle. I have a background in the content areas of math and science which led me to be interested in the STEAM magnet program.

What do you love about our school and children?
I love that there is an immediate feel of a family atmosphere when you enter SMS. Every single person greets you with a warm smile each day.

What is the most challenging aspect of your responsibilities?
The most challenging aspect of my responsibilities is balancing time between work responsibilities and being a mom to my son Jacob.

Personal Philosophy of Education:
My philosophy of education is that all scholars desire a sense of belonging. Once we offer a safe, comfortable environment, where scholars feel they belong, then the learning can begin!

Having a Heart-to-Heart About Online Reputation

By Amanda Quesada
Staff Assistant, Family Online Safety Institute

For most parents, it would be horrifying to find explicit or offensive content on their child's public page or profile for everyone else to see. A parent wants what's best for their child, and surely, they want their kids to personify the values they've imparted on them.

Mistakes happen and children and teenagers sometimes post certain information that should otherwise not be public. I was one of those teenagers that, in rebellious efforts, made statements through comments, pictures, or other digital gestures, that certainly didn't reflect the values my parents taught me growing up. Thankfully, most of it was humorous and never amounted to graphic or violent content. And, since then, I continue to feel uncomfortable when my friends, or acquaintances, post information online that is distastefully TMI ("too much information"). And that visceral feeling is a reminder that personality, character, and reputation are not only judged by how you present yourself in the physical world, but in the digital one as well.

If your child decides that their post does not represent them anymore, they can delete the post. Unfortunately, anything that goes online will stay online, even after being deleted. The "privacy settings" and other tools that make users feel more at ease when deciding to share information only grant us a false sense of security. Smart phones and other digital tools were not necessarily designed with privacy in mind. Even if your child or teen takes extra precaution when sharing information that (s)he thinks is private, their information could always leak. That is because whether publicly or privately, information shared over digital means will always have a way to become widely accessible. A screenshot can be taken, phones can be stolen, and passwords can be hacked.

That's why talking to your kids about what they initially share online is just as important as discussing the basic precautions on how to safely maintain personal information while online. Besides, the conversation about online reputation has other benefits for children that you may have not thought of before:

Helps craft the foundations for their personal identity sooner

For starters, this conversation can help strengthen the parent-child bond as they discuss the makings of their identity. For any developing mind, understanding who they are can be a contentious and challenging question. But frequent conversations initiated by those who love and support them the most is a way to help young people answer questions about who they are and who they want to become.

Awareness about social cues and norms

Because our digital presence becomes an extension of our identity, children should become aware that their online actions have consequences. Online activity can have a malicious effect when the person behind an aggressive Tweet or comment feels physically distant from the recipient. However, children should realize how their digital messages could be perceived and interpreted by a wider audience. This is also an opportunity for parents to teach their children how living out their values and ethics also extends to their online behavior.

Makes them think about their future more in depth and learn personal accountability

A positive online reputation is now an integral part of achieving many goals in a young person's life. So, talking about the impact and the technological tools that children have at their disposal can be what makes a difference in the long run. As children prepare to try out for a team, a play, and especially when applying for college, they should be aware of how their digital representation lines up with their goals. Parents can lend a guiding hand when talking about what their child envisions for her or his future. If your child's online image doesn't do them justice, help them understand why that comment is hurtful, why that picture is rude, and let them learn the responsibility that comes with such tremendous access to information and communication.

The conversations parents have with their children and teenagers surrounding the pitfalls of online activity are as important as any other educational conversation you will have with them. If only my sweet old parents knew back then, maybe—just maybe—I could have avoided some pretty embarrassing posts.

Lagniappe

The STEAM-Powered Classroom

Charlie Harper

An instructional coach makes a bold case for integrating problem-based learning across the curriculum.

This article is intended to be a message of hope and a call to action for any teacher or leader who dreams of transforming learning in their school.

If I captured your attention with that opening, my next best move, pedagogically speaking, would be to follow up with a problem-based challenge rather than a lot of explanation. So here is your task: Illuminate a small (flashlight) bulb using only one D-cell battery and a single piece of insulated copper wire—and you are not allowed to cut the wire! No spoiler alert forthcoming. If you want to know if it is possible to make the bulb light up using only a single wire, you will simply have to discover the answer through experimentation.

Fun, right? But let's analyze this activity from several school-based perspectives. Students are intrigued and challenged by seemingly non-academic tasks like this that allow for exploration and discovery. If the challenge

is presented as a collaborative group activity, they can verbalize their thoughts, ask questions, or make suggestions. There is no apparent right or wrong answer, which—after possibly causing initial low-level anxiety for some—emboldens them and promotes participation. They learn from the experience itself, but also from interacting and communicating with one another. And even the relatively small success of turning on a lightbulb will bolster their sense of self-efficacy.

From the teacher's perspective, the challenge is a thing of beauty because it requires students to use active inquiry, critical thinking, and problem-solving skills. The teacher can move between groups to observe, interject questions and comments, and assess. Meanwhile, students are busy constructing scientific understanding and making learning connections either individually or within their groups. This is an opportune time to scaffold a scientific lexicon by introducing advanced or technical vocabulary. You might use *illuminate* instead of light up. Refer to the wire as a *conductor* from this point on. The plastic coating *insulates*. That thin, high-resistance wire inside the bulb is called a *filament*. Students will be simultaneously handling the components, hearing the terms, and experiencing the content, so learning becomes authentic, engaging, and meaningful. And then there are the possibilities for integrating content and skills from literacy, social studies, and math (for example, informational writing to describe a process; historical research on Thomas Edison; applying simple algebraic formulas to calculate voltage, current, power, and resistance).

This simple example highlights the key tenets of STEAM (Science, Technology, Engineering, Arts, and Mathematics) programming coupled with problem-based learning. I believe it also illustrates a fundamental shift that needs to occur in curriculum and instruction—and not just in science classrooms. STEAM and problem-based learning are based on the principle of learning-by-doing, a powerful and memorable way to learn (Hackathorn et al., 2011). They are also based on the premise that humans have an innate drive to solve problems (Pink, 2009). Instead of reading about electrical circuits and memorizing vocabulary terms—or, worse, being subjected to lectures on the topic—students should be challenged to engage in the actual work. The teacher then assumes the role of a facilitator and coach, which has its own benefits.

Is this way of teaching practical or even realistic, though? That brings us to the leader's perspective, which is more complicated.

The School Leader's Dilemma

As instructional leaders, principals are charged with creating and implementing a shared vision of teaching and learning. Based on my personal experience, this has less to do with conspicuously displayed vision and mission statements than it does with trust and support. Most teachers direct their classrooms on the basis of their administrators' explicit and implicit messages about what teaching and learning are supposed to look like. Unfortunately, those messages don't always encourage novelty, innovation, or risk-taking in the classroom.

In considering the value of the kind of problem-based STEAM learning I've been describing, leaders should reflect on their own instructional philosophies by answering the following questions:

1. Is it more important for students to be able to recall information or to ask questions?
2. Do you believe students' attention must be focused on the teacher for optimal learning?
3. How would you evaluate a teacher who most often responds to students' questions with another question instead of providing answers and explanations?
4. Can teachers in your school easily access a convenient supply of materials, tools, and equipment?
5. Does your school utilize space in creative and flexible ways to expand possibilities and entice learners?

Got your answers? The next step is to consider how your school's teacher-support and evaluations systems—not to mention your own tacitly expressed expectations—can be reconfigured to encourage the kind of instruction you genuinely value and know is important. This may mean de-emphasizing qualities like control and

consistency in classrooms and doing more to understand and support instructional practices that foster energy, expressiveness, and enterprise.

A Garden of Possibilities

But teachers who are interested in problem-based STEAM instruction need more than support from leaders. They also need guidance and lesson ideas. In that context, let me outline another simple example—gardening.

Numerous research studies underscore the merits and positive effects of garden-based learning (Blair, 2009; Han et al., 2015; Wirkala & Kuhn, 2011), findings that I can attest to from my own experiences. Gardening is problem-based learning by nature and highly amenable to rigorous STEAM instruction. The engineering design process is inherent in any horticultural endeavor, as are life skills and character development. Seed packages are rich with math and science content, including measurement and fractions, calendar and times, maps skills and geography, and climate and seasons. Gardening is also perfect for teaching experimental design and variables (that is, dependent, independent, control, and confounding). Indeed, garden projects provide a relevant context for many core ideas in science, including the basic needs of organisms, ecosystems and habitats, food chains and webs, physical and chemical properties and changes, classification, weathering and erosion, symbiotic relationships, cells and microorganisms, conservation, and sustainability.

And consider the possibilities for interdisciplinary links. Imagine 5th grade students growing their own Victory Garden at school while studying WWII in social studies, plant classification in science, ratios in math, and persuasive writing in language arts. Learning standards from every subject and any grade level can be easily applied to create an integrated learning unit. From raised beds to square foot gardening, aquaponics to aeroponics, horticulture offers creative and innovative projects that incorporate every tier of Bloom's Taxonomy.

Everyday Problems

The key is to start with common, everyday problems for which solutions already exist and that will interest students and offer multiple discoveries and learning opportunities. (See sidebar for additional lesson ideas.) Often educators will start with their content standards, but then struggle to find engaging activities that directly relate to what they must teach. I prefer a backward-design approach—start with any essential question that relates to a problem or project, view it through an interdisciplinary lens, and then connect as many relevant standards as possible.

Here again, school leaders can be instrumental in removing the barriers that prevent teachers from fully embracing innovative instructional models. One such barrier is a rigid curriculum scope and sequence. Curriculum maps and pacing guidelines are useful in some circumstances, but they can inadvertently restrict opportunities for integrating inventive projects and ultimately limit teachers' creative potential. Similarly, regimented benchmark assessments that dictate that certain learning units be taught within specific time frames can create pressure on teachers to use direct, teacher-centered instruction and address subject areas in isolation. Flexibility is foundational to instructional success in STEAM-focused, problem-based learning.

Another common obstacle is a lack of resources and materials, and I'm obviously not referring to textbooks and worksheets. If possible, leaders should budget for appropriate supplies and materials, but schools can also make a coordinated effort to collect and organize a range of household disposables that can be repurposed for projects. Plastic water bottles, egg cartons, bottle caps, paper towel or toilet paper tubes, bubble wrap, glass jars—all of these can be useful. If budgeting doesn't allow for tools and equipment, parents and local business partners are usually enthusiastic to donate hand tools, safety glasses, work gloves, and even power tools such as drills and saws. Creating room for a makerspace or innovation lab—or even just encouragement for teachers to do so—can also be helpful.

Teachers should be given opportunities to attend educational conferences and visit nearby STEAM-focused schools. It may not be feasible to send entire faculties, but selected individuals can host teacher workshops to share what they learned. Most of the ideas I share as an instructional coach, including the ones in this article, were learned through taking regional professional learning courses, attending state and national conferences, visiting established STEM/STEAM programs and schools, and reading content-specific periodicals.

Cultivating an Inventive Spirit

The possibilities of STEAM and problem-based learning are limited only by our fixed mindsets and restrained imaginations. Schools must cultivate an inventive spirit that invites risks and welcomes failures—and learns from both.

Although the projects I've highlighted may seem unconventional, STEAM and problem-based learning together represent a pragmatic approach to school improvement, offering the potential for academic gains, collaborative and social-skills development, enhanced communication, and increased family engagement. I can attest from my own experiences that the benefits are substantial, but they can only be realized by courageous educators who not only dream of transforming learning in their schools but also are intrigued by and embrace the challenge of change.

For a discussion of other STEM projects, see the online article "Problem Solving in Education: A Global Imperative" by Dennis Shirley and Pak Tee Ng.