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Caldwell Early College High School: A Middle School Approach to High School

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Abstract

Caldwell Early College High School (CECHS) is an innovative high school exploiting middle school concepts to foster student success—both now and in the future. Teachers use teaming, student advocacy, and other middle school concepts to design and implement instruction that is challenging, integrative, exploratory, and developmentally responsive. Activities created are not the stereotypically "teacher-centric" and ineffective high school lessons; students participate in projects and activities in which they are directly involved in the learning process. Similarities are apparent between the school structure and type of teaching at CECHS and the concepts laid out in *This We Believe* (2010).

Caldwell Early College High School: A Middle School Approach to High School

When many people think back to high school, they recall dingy lights and bland walls, taking pages and pages of notes, multiple choice tests, teachers who didn't remember their name the next semester, and wondering how in the world they would ever use this "stuff"…sound familiar? All too often, high schools in North Carolina bear a painfully close resemblance to these traits. On the Caldwell Community College and Technical Institute campus in Hudson, North Carolina, however, Caldwell Early College High School (CECHS) is making strides not only in improving high school for its students, but also in enacting change in other high schools.

CECHS was created as part of a statewide initiative to create schools dedicated to reducing the dropout rate and preparing students for the future. The vision of the school is that every student will graduate ready for college, career, and life. To reach this lofty goal, the school has been purposefully designed to encourage teachers

to employ a variety of innovative, research-based teaching practices, many of which are aligned with concepts enacted in middle schools.

Administrators, teachers, and parents at the school have created a school atmosphere that reflects many of the lauded concepts of the National Middle School Association's *This We Believe*: *Keys to Educating Young Adolescents (2010)*. Concepts such as advocating for students, providing relevant and challenging instruction, creating integrated and engaging lessons, and utilizing teaming and flexible scheduling to provide the most developmentally responsive learning environment possible are common strands that drive decision making processes. In and out of the classroom, students are given the same message: *We believe in you.*

One of the guiding ideas at CECHS is the belief in interdisciplinary connections and integrated units. Each grade level is comprised of an interdisciplinary team of teachers—Seminar, English, Science, Math, and History—who work together to create integrated units of study based around "Big Ideas." Each of the "big idea" units focuses on a common theme, allowing each class to align curriculum standards around one unifying idea. For instance, CECHS Juniors participate in a Utopian Society Project. In Elizabeth Grogan's English class, students kick off the big idea by reading a magazine article as well as a novel that directly relate to the concept of genetics that students study in their Biology class. During both readings, students participate in literacy circles designed to increase understanding of what is read and literature circles designed to allow students the opportunity to discuss literary elements within readings. As reading progresses, students participate in a Utopian Society Project. Within this project, students work in collaborative groups. Each student is assigned a role within the society, varying from scientists to historians. These connections to other subjects provide an integrated, cross-curricular bond and greatly enhance student learning. While working as a group, students who assume roles as historians use technology to research past successes and failures of government. Similarly, those who assume the scientist role research scientific discoveries to determine what current actions will best serve their society. Students with other roles conduct similar research to inform the group project. At the conclusion of the project, students play the role of mathematician as they use technology to create "blueprints" of their society, taking into consideration area and probability as they design their community. This project provides a variety of curricular connections through the integration of subject matter as students focus on the unit's big idea, Utopian Society.

Eleventh graders are not the only students who participate in interdisciplinary units. Students in the ninth and tenth grades also participate in units designed around big ideas. The ninth grade year is kicked off with "Rollin' on the River," another one of the school's "big ideas." During this unit, students research ancient river civilizations as they create presentations in World History, learn about water quality issues by testing water in Earth Science, and study literary devices as they analyze nature poetry in English. Students also complete activities in their Integrated Math and Seminar classes that both support the "big idea" and teach key curricular concepts. The tenth grade team has used common planning time to plan "big idea" units around the ideas of "Change," "Bonding," and "Thinking Big." These units are developed to support each subject area's curriculum while helping students make relevant connections between multiple

subject areas, the real world, and themselves.

Although the use of interdisciplinary teaming is essential in the creation and implementation of "big idea" units, teaming is also an integral part of creating the CECHS "culture." Each grade level team uses common planning time to make grade level decisions and to ensure that the needs of each student are being met. During this common planning time, each team of teachers is able to set and adapt policies that support students' academic, emotional, and social growth and development.

Grade level teams also use common planning time to meet individually with students as students "come to the table" to discuss and enact positive academic and behavioral changes. This stems from the belief shared by staff that staff-student relationships are key in creating a successful environment in which students can develop and grow academically. This proactive approach to addressing academic, social, and disciplinary issues is personalized, supportive, and thorough. For instance, a student who is struggling to turn in homework may meet with teachers to develop a plan that modifies his homework assignments provided he is willing to come in before school to work. For another student struggling to turn in homework, a plan may be created scheduling when each missing piece of work should be turned in. For each student, a personalized plan is created to meet that particular student's developmental needs. Because of this hands-on approach to address issues proactively, CECHS students commonly joke that "teachers are always in our business," a fact with which the staff not only agrees, but also boasts about.

Additionally, student advocacy can be seen outside the realm of teaming. Teachers advocate for students by developing working relationships with the college instructors who teach CECHS students. Because students take college classes on the Caldwell Community College and Technical Institute (CC&TI) campus beginning in the first semester of their freshman year, it is essential to the success of students for CECHS teachers to work with college instructors. In the ninth and tenth grade year, CECHS teachers maintain close contact with college professors by weekly email contact and by walking students to class. As students progress in their high school careers, they also take on more responsibility in college class success as they take a more prominent role in working with instructors while CECHS teachers become less involved in interacting with professors. In "Focus," a session modeled after the middle grades concept of advisory, small groups of students meet weekly with a teacher to discuss various topics and participate in team-building activities. These "Focus" sessions are driven by student feedback and often address the issues students are facing in their own lives. Providing student-centered sessions fosters the development of healthy adult-student relationships within the boundaries of school that provide students with the support they need to develop successfully both in maturity and in academics.

Of course, in addition to working to advocate for students, staff at CECHS also strive to create educational opportunities that encourage and support academic success for students. Using research-based and innovative instructional ideas, teachers create lessons that connect to the real world and teach students skills that will allow them to be successful after high school. For instance, in Malen Braswell's Integrated Math class, students work in collaborative groups to solve math problems based on real world scenarios. Using a red, yellow, and green light system—red signifying that students are struggling and need help,

yellow indicating that a student may have a grasp of the mathematical concept but still needs some help, and green signifying that a student has mastered the goal—students work towards mastery learning targets through math investigations (Block 1974; Guskey & Gates 1986; Guskey & Pigott 1988; Kulik, Kulik & Bangert-Drowns 1990). These real world problems help give math a relevance that is often missing in the typical high school math classroom. Phyllis Land's Geometry class has much of the same real-world relevancy. Students are encouraged to use problem solving and communication skills as they move around the room in groups using theorems to solve various problems. Mrs. Land circulates through the room to facilitate group work and clear up misconceptions. Once students have completed their problems, Mrs. Land can assess the solutions and adjust her instruction to meet student needs.

Geometry isn't the only subject in which the teacher uses assessment data and student feedback to guide instruction. Evidence of the use of data-driven instruction is seen throughout the school. To ensure a developmentally responsive approach to education, teachers frequently use feedback from formative and summative assessment to drive instructional activities. One example is in Brad Hamby's Earth Science classroom. Mr. Hamby, whose educational background is in middle grades education, uses technology to provide immediate feedback for students as well as to guide his instructional planning. Using a High Definition webcam generously provided through a Donors Choose grant, students are able to broadcast and share presentations made in the classroom with their families as well as with people all over the world. As students give presentations in the classroom, the webcam is used to broadcast live through a U-Stream show entitled "Mr. Hamby's Earth Science Class @ CECHS." Broadcasts can be watched live or recorded on the site for future viewing by Mr. Hamby, students, parents, and community members. A live chat gives immediate feedback to students, providing the opportunity to develop and improve their learning and presentation techniques. Additionally, the recorded presentations give Mr. Hamby an idea of student understanding of the presentation topic and of curricular strands. To view examples of Mr. Hamby's students' presentations visit http://sites.google.com/a/caldwellschools.com/earthscience-cechs/home/ustream-channelhttp://sites.google.com/a/caldwellschools.com/earthscience-cechs/.

Staff at CECHS also believe that curriculum should be challenging. In Mitch Wright's Civics classroom, students are encouraged to think creatively. Often, students learn concepts related to Civics by participating in classroom simulations. For instance, students participated in a Revolution Simulation in which the First and Second Continental Congresses were recreated in the classroom. Students were randomly assigned into three factions: a group of five "Patriots" who were in favor of separation from Britain, five "Loyalists" who remained loyal to the Crown, and a larger group of "Naturalists" for whom the first two factions would craft speeches to convince them of their cause. Each student was not only assigned a broad role as a faction member, but also a very detailed character to play within the group. As the simulations took place, students began to simulate dialects and to wear period clothing to make their characters come alive. Students were given Continental Dollars (made from cardstock) which added to the competitive aspect of the simulation and often drove the work ethic of the group members – much as it does in the real world. Other added details of the simulation that generated excitement included special

tactics that each faction could use to sway members. Bribery, jailing or even tarring and feathering (with a full-body chicken suit!) could be used to influence faction members to support a specific cause. By the end of the simulation, Mr. Wright noted that students became interested, passionate, and very knowledgeable of the early American government. By participating in classroom activities that challenged students to think laterally, Mr. Wright's Civics students were able to deepen their understanding of the foundations of American government.

In addition to challenging students, staff at CECHS strive to provide exploratory instructional opportunities by giving students choices in assignments and assessments. In Whitney Sims' Freshman English class, students were given an assignment in which they were required to produce a multi-genre response to the class-wide novel *Uglies* by Scott Westerfield. The project requirements were for students to create artifacts that demonstrated their understanding of various literary elements within the novel as well as an understanding of the novel as a piece of literature; however, the types and topics of these artifacts were mostly left to students to decide. Students were able to explore their interests and ideas as well as utilize their diverse learning styles because they were given personal choice in their artifact types and subjects. Students chose to create artifacts ranging from talk show interviews and character sketches to city plans and literary critiques. Because students were allowed to choose much of what went into their projects, some students collaborated with other students to create YouTube videos featuring dialogue; others chose to re-write and perform a popular song with strong ties to characters in the novel; others developed board games based on the novel's plot. The choice in artifact type empowered students to create pieces that not only showcased their understanding of the unit's learning goals, but also allowed students ownership in their project as they made each multi-genre artifact uniquely their own.

Seminar classes at CECHS also provide students with an exploratory classroom experience. In Wendy Smith's Freshman Seminar class, students complete a yearlong project entitled "Who Am I?" which allows students the opportunity to examine themselves, their interests, and their families as they complete projects that are about their own lives and identities. This project allows freshman students the opportunity to explore and develop their own identity as they complete artifacts that answer the question "Who am I?." In Shea Bolick's Sophomore Seminar class, students learned about Caldwell County, taking trips around the county to explore the culture and history of the county. For third, fourth, and fifth year students, a seminar class is also included in their high school schedules. These classes not only provide support for academic success, but also they promote development and maturation as students develop interpersonal, academic, and life skills through exploration of a variety of topics.

Another way CECHS staff encourage exploratory learning is through Seminar Days, which take place each Friday. Each Friday, students participate in an activity that takes learning outside of the classroom. Some examples include a tubing trip on the New River as the "kick off" to Rollin' on the River and hiking Hibriten Mountain in tenth grade as part of an ongoing study of Caldwell County. Additionally, students in every grade participate in service activities, visit at least two North Carolina universities each year, and go on a grade-level road trip. The road trips take students all over the United States, visiting places such as the Outer Banks in ninth grade and Washington, DC in eleventh grade. This trip, taken in May between college exams and End-of-

Course testing, is designed to help students make connections between the real world and what they've learned in school. Mr. Hamby remembers, "When we were at the Outer Banks and students were saying, 'Mr. Hamby, I see a jetty!' it was awesome to see what they had learned become real, meaningful, and relevant." The road trip also gives students the opportunity to gain life skills, such as appropriate travel etiquette and how to adapt to new situations that they can continue to use once they have begun their college careers.

In every classroom at CECHS, from Science to Seminar, teachers are working to create an educational experience that truly promotes student success—both now and in the future. Using a variety of researched-based strategies from traditional high schools, the 21st Century Skills Network (Partnership for 21st Century Skills, 2009), the North Carolina New Schools Project (The North Carolina New Schools Project, 2010), and, yes, even middle school concepts (National Middle School Association, 2010), teachers are taking an innovative approach towards meeting the school's motto: Ready for College, Ready for Career, Ready for Life.

For more information about the innovative teaching that happens at Caldwell Early College High School, please visit the school's "Big Ideas" website at http://sites.google.com/a/caldwellschools.com/cechs-big-ideas/. This website gives information for each grade level's Big Ideas as well as instructional activities other teachers can try in their classrooms.

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