

U.S. Department of Education
2020 National Blue Ribbon Schools Program

[X] Public or [] Non-public

For Public Schools only: (Check all that apply) [] Title I [] Charter [X] Magnet [] Choice

Name of Principal Dr. John E. Ash
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name Central Magnet School
(As it should appear in the official records)

School Mailing Address 701 East Main Street
(If address is P.O. Box, also include street address.)

City Murfreesboro State TN Zip Code+4 (9 digits total) 37130-3942

County Rutherford County

Telephone (615) 904-6789 Fax _____

Web site/URL http://www.central.rcschools.net E-mail ashj@rcschools.net

I have reviewed the information in this application, including the eligibility requirements on page 2 (Part I-Eligibility Certification), and certify, to the best of my knowledge, that it is accurate.

Date _____

(Principal's Signature)

Name of Superintendent* Mr. Bill Spurlock E-mail spurlockb@rcschools.net
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

District Name Rutherford County Tel. (615) 893-5815

I have reviewed the information in this application, including the eligibility requirements on page 2 (Part I-Eligibility Certification), and certify, to the best of my knowledge, that it is accurate.

Date _____

(Superintendent's Signature)

Name of School Board
President/Chairperson Jim Estes
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application, including the eligibility requirements on page 2 (Part I-Eligibility Certification), and certify, to the best of my knowledge, that it is accurate.

Date _____

(School Board President's/Chairperson's Signature)

The original signed cover sheet only should be converted to a PDF file and uploaded via the online portal.

**Non-public Schools: If the information requested is not applicable, write N/A in the space.*

PART I – ELIGIBILITY CERTIFICATION

The signatures on the first page of this application (cover page) certify that each of the statements below, concerning the school’s eligibility and compliance with U.S. Department of Education and National Blue Ribbon Schools requirements, are true and correct.

1. All nominated public schools must meet the state’s performance targets in reading (or English language arts) and mathematics and other academic indicators (i.e., attendance rate and graduation rate), for the all students group, including having participation rates of at least 95 percent using the most recent accountability results available for nomination.
2. To meet final eligibility, all nominated public schools must be certified by states prior to September 2020 in order to meet all eligibility requirements. Any status appeals must be resolved at least two weeks before the awards ceremony for the school to receive the award.
3. The school configuration includes one or more of grades K-12. Schools on the same campus with one principal, even a K-12 school, must apply as an entire school.
4. The school has been in existence for five full years, that is, from at least September 2014 and each tested grade must have been part of the school for the past three years.
5. The nominated school has not received the National Blue Ribbon Schools award in the past five years: 2015, 2016, 2017, 2018, or 2019.
6. The nominated school has no history of testing irregularities, nor have charges of irregularities been brought against the school at the time of nomination. If irregularities are later discovered and proven by the state, the U.S. Department of Education reserves the right to disqualify a school’s application and/or rescind a school’s award.
7. The nominated school has not been identified by the state as “persistently dangerous” within the last two years.
8. The nominated school or district is not refusing Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district-wide compliance review.
9. The OCR has not issued a violation letter of findings to the school district concluding that the nominated school or the district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan from the district to remedy the violation.
10. The U.S. Department of Justice does not have a pending suit alleging that the nominated school or the school district, as a whole, has violated one or more of the civil rights statutes or the Constitution’s equal protection clause.
11. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the school or school district in question; or if there are such findings, the state or district has corrected, or agreed to correct, the findings.

PART II - DEMOGRAPHIC DATA

Data should be provided for the most recent school year (2019-2020) unless otherwise stated.

DISTRICT (Question 1 is not applicable to non-public schools)

1. Number of schools in the district (per district designation):
- 26 Elementary schools (includes K-8)
 - 14 Middle/Junior high schools
 - 12 High schools
 - 1 K-12 schools
- 53 TOTAL

SCHOOL (To be completed by all schools)

2. Category that best describes the area where the school is located. If unsure, refer to NCES database for correct category: <https://nces.ed.gov/ccd/schoolsearch/> (Find your school and check “Locale”)

- Urban (city or town)
 Suburban
 Rural

3. Number of students as of October 1, 2019 enrolled at each grade level or its equivalent at the school:

Grade	# of Males	# of Females	Grade Total
PreK	0	0	0
K	0	0	0
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
6	51	76	127
7	78	70	148
8	72	84	156
9	85	124	209
10	98	104	202
11	96	112	208
12 or higher	84	109	193
Total Students	564	679	1243

*Schools that house PreK programs should count preschool students **only** if the school administration is responsible for the program.

4. Racial/ethnic composition of the school (if unknown, estimate):
- 0 % American Indian or Alaska Native
 - 6 % Asian
 - 5 % Black or African American
 - 4 % Hispanic or Latino
 - 0 % Native Hawaiian or Other Pacific Islander
 - 82 % White
 - 3 % Two or more races
 - 100 % Total**

(Only these seven standard categories should be used to report the racial/ethnic composition of your school. The Final Guidance on Maintaining, Collecting, and Reporting Racial and Ethnic Data to the U.S. Department of Education published in the October 19, 2007 *Federal Register* provides definitions for each of the seven categories.)

5. Student turnover, or mobility rate, during the 2018 - 2019 school year: ≤1%

If the mobility rate is above 15%, please explain:

This rate should be calculated using the grid below. The answer to (6) is the mobility rate.

Steps For Determining Mobility Rate	Answer
(1) Number of students who transferred <i>to</i> the school after October 1, 2018 until the end of the 2018-2019 school year	0
(2) Number of students who transferred <i>from</i> the school after October 1, 2018 until the end of the 2018-2019 school year	9
(3) Total of all transferred students [sum of rows (1) and (2)]	9
(4) Total number of students in the school as of October 1, 2018	1200
(5) Total transferred students in row (3) divided by total students in row (4)	<.01
(6) Amount in row (5) multiplied by 100	<1

6. Specify each non-English language represented in the school (separate languages by commas):

While students come to us from diverse backgrounds, no current students are receiving ELL services

English Language Learners (ELL) in the school: 0 %
0 Total number ELL

7. Students eligible for free/reduced-priced meals: 8 %

Total number students who qualify: 98

8. Students receiving special education services: 1 %

11 Total number of students served

Indicate below the number of students with disabilities according to conditions designated in the Individuals with Disabilities Education Act. Do not add additional conditions. It is possible that students may be classified in more than one condition.

- | | |
|----------------------------------|------------------------------------------------|
| <u>6</u> Autism | <u>2</u> Multiple Disabilities |
| <u>0</u> Deafness | <u>0</u> Orthopedic Impairment |
| <u>0</u> Deaf-Blindness | <u>3</u> Other Health Impaired |
| <u>0</u> Developmental Delay | <u>0</u> Specific Learning Disability |
| <u>2</u> Emotional Disturbance | <u>0</u> Speech or Language Impairment |
| <u>1</u> Hearing Impairment | <u>0</u> Traumatic Brain Injury |
| <u>0</u> Intellectual Disability | <u>0</u> Visual Impairment Including Blindness |

9. Number of years the principal has been in her/his position at this school: 10

10. Use Full-Time Equivalents (FTEs), rounded to the nearest whole numeral, to indicate the number of school staff in each of the categories below:

	Number of Staff
Administrators	3
Classroom teachers, including those teaching high school specialty subjects, e.g., third grade teacher, history teacher, algebra teacher.	81
Resource teachers/specialists/coaches e.g., reading specialist, science coach, special education teacher, technology specialist, art teacher etc.	9
Paraprofessionals under the supervision of a professional supporting single, group, or classroom students.	0
Student support personnel e.g., school counselors, behavior interventionists, mental/physical health service providers, psychologists, family engagement liaisons, career/college attainment coaches, etc.	6

11. Average student-classroom teacher ratio, that is, the number of students in the school divided by the FTE of classroom teachers, e.g., 22:1 25:1

12. Show daily student attendance rates. Only high schools need to supply yearly graduation rates.

Required Information	2018-2019	2017-2018	2016-2017	2015-2016	2014-2015
Daily student attendance	95%	95%	95%	95%	95%
High school graduation rate	100%	100%	100%	100%	100%

13. **For high schools only, that is, schools ending in grade 12 or higher.**

Show percentages to indicate the post-secondary status of students who graduated in Spring 2019.

Post-Secondary Status	
Graduating class size	202
Enrolled in a 4-year college or university	99%
Enrolled in a community college	1%
Enrolled in career/technical training program	0%
Found employment	0%
Joined the military or other public service	0%
Other	0%

14. Indicate whether your school has previously received a National Blue Ribbon Schools award.

Yes No

If yes, select the year in which your school received the award.

15. In a couple of sentences, provide the school’s mission or vision statement.

The Mission of Central Magnet School is to challenge each student, teacher, and parent with the high expectations of a challenging curriculum; to provide students with a rigorous educational program in a collaborative setting, with emphasis on mastery of academics, critical thinking, effective communication skills, and character development.

16. **For public schools only**, if the school is a magnet, charter, or choice school, explain how students are chosen to attend.

Students must be residents of Rutherford County and complete a Central Magnet School application. Students are required to have at least a 3.0 GPA and minimum scores at least at the 80th percentile in two of the areas tested by TCAP (Tennessee Comprehensive Assessment Program) each of the two years prior to the application. If TCAP scores are not available, the results from a test that reports national norms must be included.

PART III - SUMMARY

Central Magnet School (CMS) opened in 2010 as Rutherford County School's first magnet middle and high school, initially serving grades six through ten. Currently, in our tenth year of operation, CMS serves over 1200 students from all areas in Rutherford County. For the past three years, CMS has been named the number 1 school in Tennessee; last year, the school was named as the number 4 magnet school in the nation and the number 5 school in the nation.

Teachers at CMS are dedicated to education; 76% of the faculty hold Master's degrees or higher with an average of 14.5 years teaching experience. Because of the commitment of excellence, CMS offers rigorous college preparatory courses. CMS students demonstrate an aptitude for learning. The past two senior classes (2018 and 2019) averaged a 30.6 on the ACT. The 2019 class had 10 National Merit Finalists, and the 2020 class has 14 National Merit Semifinalists.

CMS' mission is to challenge each student with the high expectations of a challenging curriculum. The school provides students with a rigorous educational program in a collaborative setting, emphasizing a mastery of academics, critical thinking, effective communication skills, and character development.

CMS's motto is "Always My Best." As a faculty, we believe that all students can learn at a higher level. We believe that students perform best with like peers and that gifted and talented students are often underserved. We believe in providing students with opportunities to socially, emotionally, and academically excel in a challenging, rigorous environment. We believe each student has individual needs and learns differently. CMS strives to embrace learners of all styles and students with unique learning abilities.

CMS was established with the goal to provide a rigorous, academic environment for all students. Regardless of content area, students have continuous opportunities to explore "real-world" problems. Students are asked to consider the broader context of the issue and inquire about the "so what" and "why is this important." This has been a part of our culture since the founding of the school.

STEAM: For the 2019-2020 school year, CMS achieved a STEAM-certification from Cognia (formerly AdvancED). Our intent was to create an effective outreach system to underrepresented groups within the STEAM fields. All students have access to STEAM activities throughout the day as part of the curriculum. In addition to our AP classes, there are several four-year focus areas students can take classes in: biomed, engineering and business. We have noted that STEAM has given us a chance to triangulate our expertise across various content areas.

Thesis: For the past eight years, students, as part of their graduation requirement, are required to complete a senior thesis as a capstone of their education. When completing the thesis, students follow the engineering design process of asking, imagining, planning, creating, and improving an authentic problem-based issue. CMS requires that the thesis be student-driven. We provide students guidance and offer a framework to their learning as they study independently. As a faculty, we offer support to students as they personalize and customize their research. They manage the process while the faculty facilitates. Students are required to incorporate cross-curricular components into their thesis by having two faculty (one in the English department and one in another department) as part of their thesis panel.

Advanced Placement: Because of our academic focus, students have the opportunity to choose from 33 AP courses beginning their freshman year. Our AP courses are as follows: science (7), math (3), foreign language (6), social sciences (8), computer (2), English (2), and fine arts (5). For the past five years, there has been a steady increase in the number of AP students. For the 2019 AP exams, there were 740 AP students who took a total of 1403 AP exams. 84.2 % of our students earned a 3 or higher on these exams.

A core tenet of CMS is to develop the emotional and social character of our students. While there are multiple ways we provide support for our students, the following are two:

Advisory: One facet that makes CMS special is advisory time. Beginning in their 6th grade year, students

are placed with an educator who remains with them until they graduate. The unique structure allows teachers to know a core set of students, acting as both advocate and advisor during their Central career. In addition to developing core relationships, advisory is a place where students learn the value of citizenship, community service, but most importantly, balancing academics with other areas of their lives.

Clubs and Extra-Curriculars: Our philosophy is to provide students with a holistic education – academic, social, physical, and emotional. Each week, students have the opportunity to choose from a variety of clubs. These clubs range from national organizations (i.e. DECA, HOSA, and Beta), honor societies (i.e. English, Spanish, and Science), and special interest (i.e. creative writing, cooking, and chess). Additionally, students may participate in after-school programs such as robotics, coding/programming, theater, and athletics. Because we believe in the value of these programs, all teachers sponsor at least one club or extra-curricular activity.

PART IV – CURRICULUM AND INSTRUCTION

1. Core Curriculum, Instruction, and Assessment.

1a. Overall approach, which may include overarching philosophy or approaches common across subject areas

CMS affords students the opportunity to increase their academic achievement by offering specialized curricula. Because our focus is on offering a challenging environment, our curriculum is structured to provide a rigorous education for all students. Research suggests that gifted students, such as those who attend CMS, when exposed to an advanced instructional curriculum demonstrate significant academic success. Because we specifically emphasize mastering academics and ask students to engage in critical thinking, CMS teachers engage in effective classroom practices. We have found that these practices (i.e. defining learning objectives, setting effective classroom tasks, differentiation, effective questioning, and effective explanations) support student academic success.

At CMS, we believe that self-efficacy is a crucial component to success. How students believe in their self-efficacy, in terms of regulating their learning and then mastering subjects, assists in solidifying their aspirations, motivations, and ultimately their academic achievements. How teachers believe in their self-efficacy in relation to motivating and promoting learning influences both the classroom environment and what level of academic success their students achieve.

To help students have a strong sense of self-efficacy, active learning is a major part of our educational philosophy. Active learning calls for students to become engaged in the classroom and to engage in higher order thinking. We try to establish classrooms that promote active learning which are dynamic in nature: teacher and students are mobile, students collaborate, and the instructor supports student-learning. In order to engage our students, two factors often come into play: student choice and school facilitation. CMS offers students opportunities to choose the course of their study (i.e. thesis), and our educators purposefully create an environment that fosters an active learning environment and encourages student engagement.

1b. Reading/English language arts

The CMS English Department emphasizes Professional Learning Communities (PLC) and Vertical alignment to ensure that standards are thoroughly addressed and reinforced on a yearly basis. There are two levels of PLCs in the English department: grade level and the entire department. The departmental PLC meets monthly to discuss instructional approaches and vertical alignment (grade level PLCs are discussed later).

The school is unique in that, even though students have access to a variety of resources and alternate curricular methods, students have the added benefit of connectivity between the middle and high school. Teachers of all grades meet to plan and vertically align. Writing and instructional vocabulary and methodology is standardized so that students advancing from middle to high school have an easier transition.

At each grade level, building on the previous year's instruction, students learn to infer the theme of difficult texts and to use a variety of modes of rhetorical and literary criticism to analyze texts. Additionally, students learn to organize their ideas according to the conventions of an essay; students are encouraged and expected to develop opinions, make strong claims, and cite researched and textual evidence to support those claims. The vertical alignment in the English classroom and classes like AP Seminar and AP research provide students the skills that will aid them when they complete their senior capstone: a problem-based thesis (discussed more fully in Section VI).

In the middle school, students take two classes per day—English Language Arts and English Language Lab—which work together to ensure that all state standards are thoroughly taught and assessed. This class-aligning approach also allows all middle school students to receive instruction from teachers who incorporate varied curricular approaches (i.e. Socratic seminar, writing lab, and varied technologies). Both

classes' teachers conduct weekly PLCs to ensure each student's needs are identified and addressed. The English Language Arts teacher emphasizes essential standards (i.e. reading, grammar, and mechanics) and prepares for the state test; the lab teacher (also a certified English teacher) has the time to cover other untested standards and provide more in-depth instruction to those students who need additional help in the areas of writing and reading.

In the high school, teachers meet weekly to write state and college-readiness assessments (ACT and PSAT). Additionally, they meet quarterly to specifically disaggregate data and design lessons to meet deficits. Several resources the high school incorporates are the ACT Cert, Mock AP Exams, and County Benchmarks which are used continuously throughout the year to monitor student growth. The high school also provides multiple student-driven, problem-based learning opportunities (i.e. multimodal projects, podcasts, and thesis).

To facilitate an additional alternative curricular approach, a student-led writing center is open for ten hours a week, where students can receive standard-remediation, extra tutoring, and pre-writing for college entrance essays and professional resumes. This writing center is available for all grades at CMS.

1c. Mathematics

The CMS Mathematics department meets in a weekly PLC to address the learning standards, expectations, and state curriculum. Since CMS is unique, serving a population of both middle and high school students, the department meets quarterly to discuss the standards in terms of vertical alignment. For instance, the department discusses topics when they are first introduced in 6th grade (i.e. functions) until they are applied in equations and procedures in Calculus. This allows the department to plan lessons around specific objectives and/or topics where students need reinforcement. Teachers also meet to analyze performance data to design remediation sessions.

The middle school follows the state curriculum. Algebra I, Geometry, and Algebra 2 are integrated in the sequence of Integrated 1 through 3. Pre-calculus follows the state curriculum with an additional emphasis on calculus preparation. The AP courses (Statistics and Calculus) follow College Board requirements; multiple tiers of Calculus are available at differentiated levels.

All mathematics teachers enhance the curricular expectations in math. Dependent on the standard being taught, various curricular approaches are implemented. These techniques include discovery centers, lecture, team activities, student-centered learning, and technology-based laboratory investigations. Classrooms are equipped and use laptops in partner pairs, and each student uses a calculator for grade-appropriate tasks. Teachers focus more on understanding concepts and developing mathematical reasoning than on rote learning.

All math teachers practice remediation methods like Response to Intervention (RTI), peer-tutoring, and assessment-corrections. Following formative assessments like quizzes, journals, and chapter tests each classroom teacher remediates and reteaches during a school-wide study period, Tiger Time and/or Math Lab. After students have ample instruction and remediation, summative assessments are administered like benchmarks, semester exams and end-of course and AP exams. Teachers administer common formative assessments for their specific subject-areas throughout the school year.

Similar to the student-led writing center, the mathematic department offers math tutoring each week. The purpose for the peer tutoring, in addition for students to receive additional remediation, is to stimulate interest in mathematics.

1d. Science

The science department, grades 6-12, incorporates the three dimensions for science learning: science and engineering practices, crosscutting concepts, and disciplinary core ideas. The three dimensions allow for retention of information and develop a deeper knowledge base for our students. Science disciplines are, by definition, interdisciplinary. Scaffolding techniques are critical to student success. By using this

interdisciplinary approach within the science department, we have created an environment based on common collaboration between teachers and their respective curricula. Middle school instructors lay a strong foundation for the courses taught in high school.

Weekly common PLC meetings allow for each grade level to share current standards, reinforce similar standards between grade levels, and address ideas for project-based learning and use of technology. The focus of “science as a process” is the underlying theme that leads discussion. Discussions on student data, standards-based goals, and teaching techniques designed to reach maximum engagement without sacrificing rigor occur frequently. This PLC approach is designed to stabilize class transition and increase visibility of different science pathways.

The use and analysis of common formative assessments and summative assessments allow for discussion points to address strengths and opportunities. Assessments include both multiple choice, multiple select, and free response question formats. Assessments are created using state testing resources and national examples, such as ACT and SAT, to further reinforce language and style while increasing reliability and validity. In terms of the ACT, one focus for science across all grade levels is analyzing and interpreting ACT data, which utilizes graphs, tables, and diagrams. Teachers at every grade level include multiple examples of labs and activities and assessments that allow students to use a variety of graphs and derive meaning from the data and how it relates to science.

1e. Social studies/history/civic learning and engagement

At CMS, there is an intentionality to provide students with a deep understanding of civic issues such as immigration, economic problems, and foreign policy. To ensure an equity of learning, the social studies department meets in a weekly PLC to discuss and analyze the effectiveness of formative and summative assessments, analyze data, and curricular approaches. Regardless of the course, the state and/or AP standards provide the PLC to structure effective frameworks for the various curricular perspectives offered. Each social studies teacher incorporates a variety of instructional approaches (i.e. a problem-solving approach, an approach centered on controversial issues, a discipline-based approach, or some combination of these approaches).

In terms of formative and summative assessments the social studies department utilizes problem, project, and inquiry-based instruction because they provide dynamic learning experiences that increase intellectual engagement and help foster deep understanding through the development of hands-on, minds-on teaching and learning. Another instructional technique common at CMS is historical inquiry labs which use primary and secondary sources to promote literacy and critical thinking skills and encourage thoughtful discussion and critical writing through historical investigations. The value of these assessments is that during the process, the teacher can gauge a student’s understanding, allowing time for remediation if necessary before the summative assessment takes place. The social studies department recognizes that summative assessments evaluate student learning in terms of standards and the effectiveness of the curriculum approach and alignment and the student’s placement in specific programs.

1f. For secondary schools:

Throughout CMS’ academic programs, each student demonstrates college and career readiness in a variety of ways. Our advisory program allows students to focus on college preparation skills as well as career cluster searches with individualized career suggestions/opportunities. The advisory sessions specifically hone in on life skills that students often miss in regular educational classroom settings. From the development of interpersonal and professional etiquette techniques to civic engagement opportunities to organizational skill-building, our advisory program helps build well-rounded students who are immensely prepared for real-world opportunities.

In addition to the advisory program, we utilize the YouScience program and the PSAT assessment series, both of which pair students with their strongest skills and vocational interests. These programs also allow students to identify weaknesses that can be strengthened through various refinement opportunities.

The guidance counselors meet with students one on one to help students identify potential academic and career interests. These sessions provide valuable feedback and insight for students to help them plan for their futures. Additionally, the college and advisory coordinator meets with each junior and senior each nine weeks to discuss various aspects of their post-secondary goals. These discussions include the following: college visits, scholarships and financial aid; job shadowing opportunities; mentoring; and community service.

The CMS Career and Technical Education (CTE) department provides an abundance of prospects for our students to develop and enrich professional skills for particular career interests. Our CTE programs include personal finance and business, biomed, engineering, and computer programming. All of these programs allow students to further apply skills to real-life situations and occasions which are most similar to specific professions.

1g. For schools that offer preschool for three- and/or four-year old students:

2. Other Curriculum Areas:

Below are descriptors for other curriculum areas. All grades (6-12) have the opportunity to participate or have access to each of the areas on both a daily and weekly basis.

Arts (visual/performing)

At CMS, the visual and performing sequential arts education are associated with greater motivation, engagement, and self-esteem. CMS offers Strings, Jazz, and Concert instrumental courses, visual arts, theater, and chorus.

The CMS fine arts department supports the acquisition of important skills and knowledge in multiple ways. Students learn goal setting and planning as they practice and improve at their visual/performing skill. Students develop an understanding that learning is continuous, providing them with a foundation to become life-long learners. Additionally, the fine arts department provides students with opportunities to collaborate and understand how one's individual role affects the whole. Each facet of the fine arts department provides students with the opportunity to hone their analytical acuity by analyzing problems and developing solutions. Most importantly is that the fine arts department allows students to be inquisitive about the relationship their history, culture, and art have with each other, and they develop the ability to think and talk about one in relation to the others.

Physical Education/Health

Our Wellness and Physical Education department offer students opportunities to develop beneficial knowledge to aid them throughout their lives. There are two primary focuses in the curriculum: developing healthy intrapersonal and interpersonal skills. On the intrapersonal level, students are taught nutrition planning and guidelines, lifelong fitness planning, and risk awareness (i.e. effects of substance use and abuse and mental health). On the interpersonal level, students learn ways to cultivate healthy relationships. A facet of these lessons is teaching students how to handle emergencies: CPR training, use an AED, and basic first aid skills.

Foreign Language

Foreign Language begins in 7th grade and continues through 12th. CMS offers Spanish, French, Latin, German, and Chinese, with advanced courses in each target language through AP. Class speech and written activities are either interpersonal or presentational. For example, students reply to emails or “Grid Pals” (students use FlipGrid to respond to students from Spain), form persuasive essays using real-world evidence, formally present over cultural topics, or casually converse on a day-to-day basis. Listening and reading comprehension are based largely on the amount of information learners can retrieve from what they hear or read and the inferences and connections that they can make within and across varied sources.

Beyond the classroom walls, students experience field trips, international travel, language immersion days, and various club activities to reinforce student learning. These experiences also build on their knowledge from other academic arenas. For example, the upper level German classes attend an annual Holocaust conference, and Chinese and Strings classes attend the Cultural Heritage Center.

Technology/Media/Library

CMS provides multiple opportunities for teachers and students to access and implement technology. Teachers use a variety of technology teaching methods and have been trained in blended classroom strategies. We have a 2:1 device initiative in addition to desktop labs, laptop labs and iPad labs. These tools allow for a myriad of collaborative learning opportunities for our students. One such technology learning opportunity is our Tiger News Team, a student-led morning announcement program where students operate the graphics, teleprompter, cameras, lighting, switcher, and audio board.

CMS also has a full-time instructional technology coach, who assists teachers in planning, modeling and co-teaching lessons involving technology. She also trains students in the use of Office 365 and other tools for assessment, collaborating and creating.

The library offers valued support at CMS. The librarians provide resources for students and teachers alike in order to facilitate students' learning. The library is open for all students throughout the day.

Career and Technical Programs (CTE)

CMS offers students the opportunity to explore the following career fields: Engineering, Medical, and Business/Finance. Through these programs students are exposed to a wide array of professional presentations, job shadowing opportunities, mentoring relationships, community volunteer opportunities, community outreach, and access to the workforce. Our students engage in a collaborative environment. One prime example is the cross-curricular collaboration of the biomed and engineering students who develop a medical innovation or adaptive technology where students present in our own version of "Shark Tank."

Student application of classroom curriculum, instruction, and collaboration is also demonstrated by successful extra-curricular participation in Career and Technical Student Organizations (CTSOs): DECA, HOSA, TSA, and FIRST Robotics. Our students consistently place at both the regional and state levels with several advancing to the national level. Much of our success can be attributed to our students' outstanding professionalism, talent, and skill.

3. Academic Supports:

3a. Students performing below grade level

Because we are an academic magnet school, all students perform at or above grade level.

3b. Students performing above grade level

Because of the academic nature of our school, the majority of students perform above grade level. CMS recognizes that gifted and talented students are not homogenous, and individual needs must be considered to fully support student learning. Research notes that all gifted students have some common characteristics: a high ability to think abstractly and retrieve relevant information quickly, task commitment, and creative problem solving (thinking outside of the box).

When teaching our students, CMS teachers consider student learning styles when constructing both instruction and assessment. Understanding the importance of varied instruction, CMS incorporates inquiry-based classrooms, where students are challenged to actively learn and creatively think. In an effort to better cultivate student abilities, CMS frames the learning environment in an open-ended context directly correlated with student perceptions and attitudes.

To achieve this environment, various types of instructional strategies are used. They include the following: project-based learning (i.e. Spanish students are given a real-life scenario requiring them to use problem-solving skills. Students had prepare for a group trip to a foreign country, but one of their friends has a seafood allergy. With that in mind, they have to a) research basic information about seafood allergies and b) research the menu of a given restaurant in Spanish and choose a meal that it is safe for the friend to eat); independent studies (i.e. AP English students identify an educational issue that concerns them, develop a cohesive argument, and then contact individuals who had the power to make a change. Some individuals contacted in the past include the superintendent, school board, principal, and teachers); and collaborative projects/assignments (i.e. Physics and Chemistry students complete Lab Quests which require individuals and groups figure how to solve presented problem through trial and error experimentation.

3c. Special education

The special education department supports the learning of students in a variety of ways. The department works closely with the general education teachers to provide accommodations to assignments, test, and projects. This could include adjusting the length of an assignment, extended time on homework, copies of notes, flexible seating, use of manipulatives, or providing an alternative assignment. For example, one student utilizes alternative assignments when an oral presentation is required; the student submits a PowerPoint or written assignment instead. The special education department also works with students and staff to provide visual supports for students who are working on specific emotional/behavior goals. This could include visual supports, discrete conferencing on behavior, or manipulatives. Currently, we have a student working on appropriate verbalizations; teachers utilize a stop sign visual when to remind the student about his action plan. Some students require individual testing environments as well as extended time.

Students also receive direct support from their case manager to work towards meeting the individual goals in their IEPs. These students are working on goals generally associated with executive functioning skills. For example, a student is working towards developing age appropriate organizational skills. The student meets daily with the case manager to discuss what will need to be completed for the day.

Finally, some students participate in a social skills group. Students meet every other week to work on specific goals within their IEP. These goals include developing conversational skills (sustained and reciprocal), self-advocacy skills, and stress management. The group is led by a social worker. The students have the opportunity to discuss concerns, practice their skills with like peers, and receive individual feedback in a safe environment. The case manager attends the group and works with the students during the school day to continue to develop the skills.

3d. ELLs, if a special program or intervention is offered

3e. Other populations (e.g., migrant), if a special program or intervention is offered

PART V – SCHOOL CLIMATE AND CULTURE

1. Engaging Students:

CMS has been intentional in ensuring there is something for every student. Academically, our students compete in a multitude of state and national competitive tests (National French, Spanish, German and Latin Exams; National Mythology Exam; Seal of Biliteracy from ACTFL; Geography Bee; and Mu Alpha Theta competitions). We also provide students tutoring: writing lab, math lab, and science lab. Multiple clubs serve as both an academic and social outlet for our students. HOSA, DECA, Model UN, Youth in Government and Beta all compete at the state and national level.

One program that reflects how our school engages all our grades (6th-12th) is our engineering program. This year marks our third year as a Samsung Solve for Tomorrow State winner. High school students will compete in New York this June, seeking to become a national winner. At the middle school level, the STEM classes won 1st, 2nd, and 3rd in the Sustainable Technology Solutions Challenge.

From a social aspect, CMS promotes Spirit Days, where students are encouraged to participate in class competitions, pep rallies, and talent shows. Twice a year, the school hosts a “Pig Out” day; on this day, food trucks from the area provide lunch for our students. We have various clubs who sponsor after-school activities, which include dances, community service projects, even ghost story competitions.

One of our emotional engagement activities comes in the form of “De-Stress Fest,” hosted by the Beta Club. The intention of this activity is to help lower students’ stress and anxiety because mid-terms, end-of-year testing (state and AP), and finals for their classes. Some activities include therapy dogs and art projects. Another program CMS has implemented is a peer mentoring program for 6th and 9th graders. These students are paired with older students who help guide them through their first years of middle and high school.

2. Engaging Families and Community:

CMS has developed a variety of business and community partners to support various aspects of our school. Our Thesis Conference/Expo is held annually and adult judges from local community partners and mentors are invited to judge the various thesis presentations completed by the seniors. Mentors from each local higher education institution such as Vanderbilt, Lipscomb, Belmont, and Middle Tennessee State University work with both students and staff on the teaching and learning process.

As mentioned previously, students are exposed to cross-curricular content and after-school programs. There is a diverse and interesting cross section of clubs. One unique and exceptional example of a club was initiated by the school resource officer (SRO) in which an antique car club was formed. Students help restore antique cars and participate in the Great Race which is held during the summer. Donations from sponsors and mentors help fund the costs for these students to travel to and from the race.

There is an intentionality in our school-wide community engagement. In addition to our updated website, there is a vibrant Twitter feed from administration and teachers. Tiger Hunt (our back-to-school picnic), Open House, Trivia Bowl (an annual event) and parent-teacher conferences provide faculty and families ways to establish a support network for students.

Another tier of our community engagement comes from the department and club levels. Experts in business and industry often act as guest speakers at club meetings and after school events. In addition to the mentors who aid our seniors with their thesis, there is a high degree of cooperation and collaboration with Middle Tennessee State University and other institutions of higher learning for the other grades. Examples of these include: job shadowing days, UT Latin Day, MTSU world language festival, Tennessee Junior Classical League Convention, and Vanderbilt’s annual German competition for Tennessee secondary schools.

3. Creating Professional Culture:

The empowerment of students is foremost in the minds of all teachers and leaders involved throughout the school. In fact, all faculty work collaboratively and constantly plan in Professional Learning Communities (PLCs) across content areas and within content areas. To help ensure consistent, quality instructional approaches, staff members are provided numerous opportunities for professional development. Teachers meet weekly in content-area specific PLCs to collaborate and ensure standards are being taught and mastered. Each content area has common planning time.

The Thesis PLC is comprised of teachers in various disciplines; while they do not have common planning time, this PLC emails weekly. These communications are designed to discuss and address any issues with the thesis. All members of the PLC have input into the development of the thesis handbook, rubrics, and deadlines. The PLC does have an opportunity to meet during in-service days.

Each August and January, our in-services provide focused PD for our teachers. For the past several years, the focus has been on Hattie's Visible Learning and STEAM elements (e.g. active learning). The Thesis PLC members seek out STEAM-specific training in order to stay current in best practices during the summer. Throughout the year, all teachers have the opportunity to expand their use of technology with PDs offered by the technology coach or the county.

Through the common planning, regularly scheduled interdisciplinary team meetings, and district level professional development opportunities, the teachers plan instruction and discuss curricular and instructional practices. These professional development opportunities allow teachers to identify academic areas of strength and areas for improvement and gives valuable information about a student's progress.

In addition to increasing student performance, faculty is focused on creating a happy, safe, and welcoming culture and climate throughout the school. The CMS staff cares about the students and their success, and teachers see themselves as mentors and facilitators. The teachers and staff demonstrate commitment, flexibility, and perseverance in not only helping the school grow and be successful, but to also launch new student programs. The climate is such that both students and staff want to be there every day.

4. School Leadership:

The CMS leadership philosophy aligns with the school's mission of challenging students and teachers while maintaining high expectations of a rigorous curriculum. To ensure high academic standards, two specific elements play a role: professional development and PLCs. The principal is dedicated in providing teachers with meaningful professional development. In the past, teachers have attended the Samsung Teachers Academy, Advanced Placement Summer Institutes, specialized technology training, Middle Tennessee Writing Project, and the National Science and Humanities Symposium. In terms of the PLCs, the principal consistently communicates that the PLC is an integral and essential part of our success. The principal provides consistent, frequent time for faculty to meet, and the principal empowers faculty to participate in curriculum and assessment decision-making. The strength of the CMS PLCs illustrates that the school is fully committed to ensuring all students learn. The principal is also committed to providing the necessary classroom resources. These resources have included technology and programs (i.e. YouScience), novel sets, and science-specific labs.

The two assistant principals (AP) support the school principal in overall administration of the instructional program and school level operations. They are tasked with supporting teachers in their classroom roles. Both APs have a strong working knowledge of curriculum and instruction and help teachers navigate challenges that arise during the school day. The APs evaluate both the instructional programs and teaching effectiveness in order to ensure CMS academic standards are being met. One such program is the ACT Cert. Teachers and students have been trained to use this tool, which is an ACT-like assessment. CMS students take the ACT Cert up to three times each year, which allows administration and faculty to identify student strengths and weakness in regards to the ACT College and Career Readiness Standards. Students, parents, teachers, and administrators can access detailed assessment reports that allows for individualized remediation.

The leadership (principal and APs) demonstrates strong organizational, communication, and interpersonal skills, which aids in building strong relationships with various stakeholders. The leadership has intentionally sought community partnerships to help support the CMS mission, understanding that these sponsors assist the school in its endeavors. These relationships have aided the school's academic culture through guest speakers (i.e. a local architect, aerospace engineer, and Nashville Symphony members), student mentorships (i.e. thesis), off-site experiences (i.e. job shadowing), and after-school opportunities (i.e. engineers helping with the robotics club).

PART VI - STRATEGY FOR ACADEMIC SUCCESS

Strategy for Academic Success: The Thesis Learning Experience for Students

There is a high level of engagement of all students because of the collaborative, inquiry-based learning environment at CMS. The culture of the school has created an environment where students engage in problem solving using real-world problems related to their community. The Senior Thesis at CMS is an interdisciplinary project where seniors synthesize what they have learned through the years, demonstrate college level scholarship, and develop and complete an original process or product that contributes to the greater field of study. Students choose a topic of interest. They then research that topic with the help of a Mentor, who is an expert in the field within the community. Mentors for our students have included university professors, politicians, medical professionals, educators, engineers, and individuals in IT and marketing. Students also have regular conferences with a Field of Study Advisor, who is an expert in the field at CMS, and their Senior English teacher. The thesis culminates in students publishing and defending their findings.

Students choose from one of three approaches to their thesis. The Experimental Thesis includes research in the areas of Bio-Med and Psychology. Some past topics students have explored were “Antibacterial Properties of Cockroaches and Maggots against *Escherichia coli*, *Staphylococcus aureus*, and *Acinetobacter baumannii*” and “The Link between Chamomile and Zebrafish Embryos.”

Product Thesis topics are wide-ranging and encompass many content areas (i.e. engineering, computer science, and fine arts). Students create a product as a result of their thesis research. In the past students have developed apps and computer programs, written business plans and novellas, composed concertos, and created documentaries. Some past topics students have explored were “A Plan for Non Profit Organizations to Fight the Opioid Crisis in Middle Tennessee” and “Creating Cost-Effective Virtual Reality Therapy Programs to Treat Phobias.”

The Systematic Thesis answers a definite research question by collecting and summarizing empirical evidence that fits certain eligibility criteria set by the student and can include the use of statistical methods to summarize the results of other studies. Previous topics included “The Rise of a New Tornado Alley: The Impacts of Dixie Alley’s Rise to Power” and “The Effects of Assimilation on Asian American Identity: Asian or American?”