

firsthand experiences with the core subject matter, where information is presented and exchanged in a substantially relevant context that creates a web of influentially interconnected patterns extending through the core disciplines (Boyd, 2000; CHAN, 2005; Wheeler, July, 2007).

An integrated curriculum cultivates problem solving strategies by examining multiple points of view and the incorporation of information and data from different disciplines as a means to understand the interconnectedness of the emergent sub-topics under the umbrella of the larger thematic unit. In other words, an integrated curriculum model supports a learning process and environment where students develop acute problem solving techniques that allow them to process information, make connections and inferences, and apply research based analytical skills utilizing supplemental information drawn from other disciplines to broaden their understanding of conceptual frameworks and the applied intersectionality of core disciplines.

The Archie Preparatory Academy Charter School will utilize field research projects and service to the community where techniques will be employed to further inspire and support connections between disciplines and allow students to advance their understanding through the application of theory, practice, and service. The assuredness drawn from the teaching and learning strategies of an integrated curriculum and service learning provides students with the confidence necessary for academic success.

The Archie Preparatory Academy Charter School intends to utilize a multidisciplinary and transdisciplinary hybrid approach using a backward design process to implement the integrated curriculum model. The multidisciplinary integrated curriculum is organized around state standards while the disciplines are organized under a thematic unit which precipitates collaborative planning among faculty and around a predetermined theme to ensure connectivity

and the highest potential for learning exists between and within the disciplines. The transdisciplinary approach represents a paradigm shift where project-based learning through community service initiatives and on site learning places learning in a real-life context to the benefit of the student learner. Through transdisciplinary approaches, students gain non-academic life skills, gain the ability to conceptualize, and develop inquiry based methods to problem solving.

The hybrid integrated curriculum helps develop the following core skills that are vital to students living and participating in an interconnected world:

- Collaboration and Cooperative Learning
- Critical Thinking
- Systems Thinking
- Problem Solving
- Media Literacy
- Cultural Competency and Worldview

Curriculum Scope and Sequence

English

The English discipline/curriculum can be divided into four primary areas: writing, speaking, reading, and listening.

Two of these areas, Writing and Speaking, are active skills, requiring ongoing improvement in compositional ability for better performance and proficiency. The second two,

Reading and Listening, are passive, though they require experience and practice to achieve mastery.

Throughout the year, English class will seek to broaden each student's understanding of the many purposes of the English language. There will be an ever present focus on preparing the students for more advanced writing by mastering the descriptive writing process, expanding compositional skills in technique and vocabulary, and by examining and critiquing the work of some of the world's most historically prolific writers of age appropriate literature and the relationship of their writing to the integrated instructional theme.

The class will seek to increase and improve the level of reading for each student by exploring classic and contemporary works from various genres and periods as aspects of the larger thematic assignment. Throughout the year, this class will strive to enrich students' understanding of the study of the English as an academic discipline, in preparation for the rigors of future high school courses.

As exists with any ability, writing proficiency requires regular practice to see noticeably substantial improvement. Students will be engaged in daily activities that require the application of writing skills in assignments that call for the use reflective journals, essays, interpretations, letters, vocabulary exercises, grammatical drills, poems, narratives, and formal academic works.

A considerable amount of class time will be given to student's presentations of their original works to the class, school, and community, allowing each student to hear his or her "voice" as a presenter. Conversely, this activity lends itself to the students as an audience relative to building their skills as listeners and critical participants. All of this work will require an

introduction to academic research, which will become a heavily integrated practice while ascending through the middle level years.

The goals of the English curriculum are:

Writing/Reading

- Understanding of the writing process
- Comprehension
- Sound grammatical base
- Expansion of vocabulary
- Peer editing
- Analyzing beyond summary
- Note-taking skills
- Critiquing skills
- Media literacy

Speaking /Listening

- Establish proper audience behavior
- Establish a “voice” within the realms of public speaking activities and assignments
- Understanding and use of tone
- Comfort with scripted and impromptu Speech
- Develop Inquiry/interviewing Skills
- Develop descriptive language
- Develop ability to provide descriptively rich feedback

Mathematics

This course of study will take students from general mathematics applications through Algebra 1 or Geometry. Students may then take honors level Geometry or Algebra II upon entering high school. Students that require additional accommodations, an individualized program will be available. The National Council of Teachers of Mathematics (NCTM) has created standards for math instruction from kindergarten through high school. These standards, along with Pennsylvania state academic standards, will drive the Archie Preparatory Academy Charter School's math curriculum.

The goals of the mathematics curriculum are:

- Develop competencies in mathematics, sequentially structured problem solving, and the application of logic
- Develop fluency in mathematical calculations and the appropriate application of associated formulas
- Achieve working knowledge for problem solving in Geometry and Algebra and beyond as needed
- Develop skill in communicating mathematical thinking, both verbal and written

Students will have the opportunity to demonstrate competency and documented proficiency before moving on through the sequenced curriculum. The skills outlined below represent a general outline with the understanding that adjustments and accommodations will be made for individual students.

6th grade Mathematics

Grade Math Content will be divided into the following units:

- Parts of a whole (decimals, fractions, and percents)
- Statistics
- Integers
- Equations and Functions
- Proportional reasoning
- Geometry
- Measurement
- Patterns, relationships and algebraic thinking
- Mathematical language

7th grade Mathematics

- Exploring integers
- Equations and inequalities
- Rational numbers
- Functions and graphing
- Ratio, proportion, percent
- Geometry
- Statistics
- Mathematical language

8th grade Mathematics

- Expressions, equations and functions
- Exploring rational numbers, expressions and equations
- Solving and analyzing linear and nonlinear functions
- Using proportional reasoning
- Exploring polynomials
- Graphing: relations, functions
- Exploring quadratic and exponential functions
- Statistics, data analysis and probability
- Geometry
- Mathematical language

Social Studies

Topics in Social Studies will inspire the integrated curriculum themes. The themes will stem from an immersion and examination of the community in which the school resides. This approach to the curriculum is referred to as Place-based Education. Place-based Education promotes learning that is rooted in local heritage, cultures, landscapes, opportunities and experiences. Place-based Education also emphasizes learning through participation in service projects for school and/or community. Additionally, the global dynamics that effectuate the interconnectedness of various cultures, economies, and political systems will be integrated into the curriculum for further consideration of the global effects that affect the lives of the local population and associated systems.

Students will learn about the past and present from a variety of perspectives: civics, anthropology, economics, geography, history, political science, psychology, and sociology. Students will be required to connect the knowledge they gain from all of the disciplines of social studies. The student will demonstrate an understanding of historical and current events using chronological and spatial thinking and develop historical interpretations and frame questions by collecting and evaluating primary and secondary sources. Current topics and events will be used to help students recognize historical patterns and hypothesize the future. This style of learning leads to a better understanding of the similarities and differences among the diverse cultural, ethnic, religious, and racial groups in the greater Harrisburg community and the larger world.

The social studies curriculum will devote time and effort to conducting qualitative field research towards an understanding of the longitudinal framework built from historical events, perspectives, and perceptions by using the historical inquiry sequence culminating in an oral presentation of research and subsequent findings:

- Formulate historical questions
- Obtain historical data
- Cross-examine/compare historical data
- Conceptualize historical data
- Analyze historical data for emergent themes
- Establish validity with historical evidence

Science

Utilizing the Place-based Education model promotes learning rooted in local implications and topics for consideration; the environment, geology, sources of energy, the water, carbon, nitrogen and phosphorus cycles, pollution, and human use of resources, as well as global warming and the impact of clean water efforts on the Susquehanna River and the outlying bodies of water. All major areas of science will be represented: physical, life, and earth. Lab work and activities at all grade levels will parallel readings, class discussions, and activities.

Besides the concepts specific to each individual lab activity, learning to conduct quantitative research through the use of scientific instruments will be contributory to the successful implementation of the science curriculum. Accordingly, the sixth grade year will focus on gaining the quantitative skills needed to examine, measure, and examine the world around them. They will learn to accurately measure time, distance, volume, mass, and temperature using a variety of low and high technology tools. Seventh and eighth grade students will continue to collect a wide range of data and continue to explore and investigate the numerical/quantitative data collected more fully as the use of mathematical skills to analyze the accuracy and precision of their work, across disciplines, increases reliability.

High School Curriculum (9-12)

There is considerable discussion about aligning high school graduation requirements with college admissions requirements, but little alignment has occurred to date (AASCU, 2006). The Archie Preparatory Academy Charter School intends to establish a catalogue of course offerings, teaching and learning, and behavioral expectations that promote student learning that exceeds

state standards, are aligned with college admissions requirements, and involve strategically implemented courses that focus on student growth, acquisition, service learning, and behavior.

Although all high school graduates should have the learning capacity to venture onward into the halls of higher education, real numbers indicate that only 1 in 3 students successfully complete an undergraduate degree (Schwartz, 2010). Therefore, the necessity in the present to provide the opportunity to secure other skills is evident. The Archie Preparatory Academy Charter School intends to advance studies for the non-academic track student by offering a comprehensive pathway network that embraces multiple approaches to assist youth in making the transition to adulthood, involve local, state, and national employers in work-based learning, and create a new social compact of excellence.

Extended Curriculum (varying implementation)

Service Learning (grades 5-12)

The purpose of the service learning component is the development of leadership traits and values using research based techniques and applied theory to experiential learning initiatives.

The program will enable students to recognize needs in the community, evaluate the needs, develop problem solving strategies, and reflect on their experience as well as critique and celebrate their experience. This is accomplished by planning projects that directly relate to the middle level integrated curriculum themes, the high school, and the larger mission of the Archie Preparatory Academy Charter School. The interweaving of service with the curriculum strengthens the philosophy that service can exist as a part of life's daily routine and that purposefully strategic initiatives have the potential for sustainable success.

Additionally, research indicates the positive outcomes when educational programs integrate a service learning component to the curriculum. Further, service learning is a promising strategy to stem the ongoing proliferation of drop out rates (Billig, 2000; Billig, 2002a; Billig, 2002b; Billig, 2001; Billig, 2003; Bridgelan, Dilulio, & Wulsin, 2008).

Service-learning activities address various components or strategies Identified as important to dropout prevention such as engaging teaching curricula, connections between school and work, adult and student relationships, communication skills, and community engagement (Special Olympics, 2010).

Various instructional strategies will be utilized in the comprehensive service learning [project] process from initial planning and focus group inquiry and decision making to organization, engagement, and outcome. The service learning experience will be framed within the context of a specific thematic instructional unit. Thus, using the cross disciplinary approach of an integrated curriculum creates great opportunities for service learning projects as an outgrowth of the classroom curriculum. A service-learning experience is designed as a civic outcome stemming from the intentional application of knowledge gained through formal instruction as a means to furthering student mastery of content (Special Olympics, 2010).

Physical Education/Health and Wellness (grades K-12)

The Archie Preparatory Academy Charter School intends to establish a hearty physical education and health and wellness curriculum through coursework as well as a community wide campaign. The Archie Preparatory Academy, through the aforementioned campaign, intends to partner with local health and human service agencies as well as the Centers for Disease Control and Prevention to introduce a significantly sturdy city-wide health consciousness initiative. These

series of integrated projects will focus on healthy foods for students and families, nutritional awareness, disease prevalence and prevention, and increased physical activity.

Additionally, the physical education and health and wellness curriculum will include supplemental partnerships with the Central Pennsylvania Food Bank, Harrisburg Boxing Club (501c3: FEIN# 56-2665948), the National Network of Statewide Afterschool Networks, and leadership participation in the Prevent Obesity Network to establish a series of fitness and nutrition afterschool programs.

Overall goals of the physical and health and wellness initiatives are:

- Create staff-led Coordinated School Wellness Councils
- Encourage students to make appropriate choices and exhibit positive behavior
- Increase the physical activity of all Archie Preparatory Academy Charter School students
- Increase the availability of healthy foods through localized partnerships
- Decrease the availability of unhealthy items
- Establish obesity prevention program and activities
- Use state and federal funds to establish additional programs to promote

Given the physical development of the young adolescent, it is imperative that students are physically fit and have ample opportunities to exercise their bodies. The positive impact on academic performance is not to be underestimated. The student will participate in a variety of cooperative games and sports. Students will engage in physical activities that provide a challenge and problem solving techniques, decision-making, sportsmanship, and collaboration.

Upon entering high school, the health and wellness curriculum will integrate a positive mental health and behavior component. This supplement to the health and wellness curriculum includes the following practices:

- Self-concept/self-esteem
- Skills for promoting resiliency
- Effective use of support systems
- Social and personal skills
- Decision-making
- Goal setting
- Positively effective and clear communication
- Risk factors for negative behavior
- Resisting negative influence
- Avoiding self-destructive behaviors
- Involving others in health promoting efforts
- Health concerns that require individual or collective responsibility
- Lifelong wellness plans
- Loss, death, separation, divorce, relocation
- Prevention skills: coping, resistance, refusal, assertiveness
- Impact of drug, alcohol, and tobacco use on individuals, families and society
- Drug, alcohol, and tobacco use
- addiction
- Analyze the harmful effects of tobacco, alcohol, and other substances and explain the role that these substances play in unsafe situations, such as drinking and driving and engaging in unsafe sexual activity
- Analysis of the media messages which promote experimentation with tobacco, alcohol, and other drugs

- Health assessments
- Consumer and Environmental Health
- Environmental conditions that affect the health of individual, family, and community
- Principles of behavioral consumer health
- Choosing health products, services and information
- Situations requiring professional health services
- Health related social issues
- Media influence on health practices

Visual Arts/Performing Arts (K-12)

Arts education benefits both student and society. Involving the "whole child" in the arts nurtures the development of intuition, sensitivity, reasoning, imagination, and dexterity. Arts education helps students perceive and think in new ways, opening their minds and supporting the development of a global citizen. The arts also nurture a love of learning, responsibility, persistence, and positive risk-taking. The Arts curriculum will tap into the wealth of artistic talent that lies in the greater Harrisburg community and surrounding region. Projects will be interwoven with the curriculum integration themes.

Technology (5-12)

The Archie Preparatory Academy Charter School desires to establish a technology rich middle level and high school environment. At the Archie Preparatory Charter School, the computer will be considered a transformative learning tool as well as a tool of efficiency that adds to the overall experience of the students in a variety of settings and content areas. Technology will be used for gathering, analyzing, manipulating, and communicating ideas. Students will produce a variety of

end products including word processed documents, multimedia presentations, spreadsheets, graphics, web pages, etc. The use of technology promotes creativity, collaboration, higher order thinking, and distance learning and communicative opportunities. Technology will be viewed as an opportunity to further develop skills to enhance all other learning opportunities at the Archie Preparatory Academy Charter School.

Language and cultural immersion (5-12)

The City of Harrisburg is comprised of many cultures, races, ethnic groups, and religious factions. For students to continue on a success track while preparing for a career or continuing education upon graduation, the need exists for all student populations to be proficient in the acquisition of a second and third language that parallels the globalization of the economy, media, educational, and technological systems.

Nathan Glazer (1975) argues that we have abandoned the "consensus" of the mid-1960s, which extended to African-Americans the embrace of a distinctive American ethnic pattern characterized by public neutrality and private freedom, and have instead made a commitment to facilitating the maintenance of ethnic heritage and requiring school authorities to take into account ethnic and linguistic differences in education. The establishment of an academic institution with a focus on the differences and similarities of cultures and ethnic groups allows for total inclusion of a diverse urban population towards cultural understanding and acceptance. Although public schools systems throughout the United States applaud their diverse populations and acceptance of various ethnic, religious, and cultural groups, further exploration into language acquisition in countries such as Egypt bring forth the example that academic excellence can and is supported through language. Fourth grade students attending privatized learning institutions in

Egypt are expected to master French, Arabic, Portuguese and English to a level of proficiency that allows for oral and written communication across a diverse group.

The Archie Preparatory Academic Charter School has realized that Mandarin Chinese is an important language for our student population due to the rapidly growing impact of Chinese culture worldwide. This is supported through the significant numbers of Mandarin speakers from Malaysia, Indonesia, Vietnam, Thailand, Laos, Cambodia, Hong Kong, and the Philippines. Written Chinese is based on spoken Mandarin and is known as *hànyǔ* or *zhōngwén*. Speakers of other varieties of Chinese have to learn the grammar and vocabulary of Mandarin in order to read and write in Chinese. Mandarin is spoken by 870 million people as a first language. An additional 180 million or so people speak it as a second language. The total number of speakers is over a billion. Therefore, Mandarin acts as the foundation for extended dialects within the Chinese language. Moreover, the children attending the Archie Preparatory Academy Charter School are going to be graduating in 2025, when the largest economy in the world will be China (Reuters, March 5, 2008; ACUS, November 20, 2008), not the U.S., where a great number of opportunities are going to be related to Chinese companies.

The Archie Preparatory Academy Charter School intends to introduce students to China through the integrated curriculum with a formal introduction of culture in fifth grade and sequenced language and advanced cultural immersion through the remainder of the middle grades. Like the First Philadelphia Charter School located in Philadelphia, Pennsylvania, the Archie Preparatory Academy Charter School proposes to extend the language immersion curriculum by initiating a travel abroad study program for the eighth grade students.

Transition to high school

Moving from a middle level environment to a high school setting requires that the middle level school coordinate with the high school to make that transition as synchronously aligned as possible. The transition can be seamless when sequenced program elements are in place. The Archie Preparatory Academy Charter School will collaboratively with the prospective high school entities to understand the ninth grade course work and expectations for incoming students. Further, the Archie Preparatory Academy Charter School will communicate all intended preparatory exercises to parents and receiving high school.

The Archie Preparatory Academy Charter School has high expectations for student performance over the course of the four middle school years. Those expectations should reach beyond the general ninth grade guidelines. For example, the eighth grade English curriculum will include writing assignments that reflect the standards set forth in the SAT examination.

Students will need to be observed, evaluated, and tested on a regular, basis, using a variety of evaluative tools, including standardized tests. As part of student assessments, students will be building portfolios that will demonstrate competencies which will be used as a tool to advocate for appropriate placement in high school.

B. Students with disabilities

The Archie Preparatory Academy Charter School intends to establish agreements regarding the provision of services and programs for compliance with a variety of service providers including the Local Education Agency and Intermediate Unit.

The Archie Preparatory Academy Charter School will contribute to achieve performance indicators in the following areas:

- Curricula adaptation
- Assistive technology
- Supplementary aids and services
- Professional development

The Archie Preparatory Academy Charter School intends to abide by all stipulations and regulations set forth through Pennsylvania School Code § 711; Charter School and Cyber Charter School Services and Programs for Children with Disabilities as well as the Family Educational Rights and Privacy Act (FERPA).

C. Instructional methods

Elementary Teaching: Cooperative-teaching

Co-teaching is a collaborative effort involving the distribution of responsibilities between the teachers for planning, instructing, and evaluating the classroom. The Co-teaching personnel consists of the curriculum coach and faculty sharing responsibility for teaching the Core Curriculum. Co-teaching requires communication and shared responsibility.

Elements of Co-teaching

To create an effective co-teaching team, teachers will agree to do the following:

- Coordinate work to achieve common and publicly agreed-upon goals.
- Share a belief that supports the idea that each person co-teaching has unique and needed expertise.

- Demonstrate parity by alternating the roles of teacher and learner, expert and novice, giver and recipient of knowledge and skills.
- Use distributed leadership practices in which the tasks, relationships, and functions of the traditional lone faculty are distributed to the coach and the faculty member.
- Use a cooperative process that includes face-to-face interaction, positive interdependence, interpersonal skills, monitoring co-teaching progress, and individual accountability.

Guidelines for Co-teaching in the Coaching Model

The Archie Preparatory Academy Charter School will opt to have coaches co-teach with the Core Curriculum faculty in order to establish laboratory classrooms in the Core Curriculum. The following are guidelines under which this will occur:

- Elementary coaches will be assigned to work with a literacy teacher or math teacher in grades 2, 3 and 4.
- Emphasis should be placed on Core Curriculum classes in third, fourth, and fifth grade to build a solid foundation for PSSA success. Co-teaching in the elementary should occur in grades 2-4.
- The work of the coach and faculty member should focus on effective use of the Core Curriculum as a vehicle to improve student learning.
- The relationship between the coach and the faculty is a partnership to improve practice and inform the curriculum implementation.
- Selection of the faculty who will be paired with the coach will be decided collaboratively by the principal and the coach. Faculty on a school improvement plan cannot be selected to co-teach.
- The selected Core Curriculum faculty and coach will be provided time in their schedules to meet and plan collaboratively. A minimum of two co-teaching

- Both the Core Curriculum faculty and the coach should be in the laboratory classroom daily. Scheduled co-teaching should occur when possible in the morning to avoid conflict with district professional development.
- Based on the Archie Preparatory Academy Charter School teaching and learning professional development cycle, coaches will work closely with the principal to establish an observation schedule for laboratory classrooms to facilitate content faculty professional learning of strategies to implement the Core Curriculum. Follow-up by the coach to support the teacher's application of observed instructional strategies into the classroom is necessary and must be supported by the principal. The principal will establish an accountability system in the school to support the coaching model and application of content-specific professional development provided by the coach into the classroom.

Responsibilities of the coach include:

- Co-teach up to two Core Curriculum classes.
- Meet and plan with the Core Curriculum faculty member a minimum of three times per week; two preps and one professional development.
- Submit lesson plans to curriculum supervisor and principal.
- Implement the Core Curriculum using the Archie Preparatory Academy Charter School's approved curriculum framework.
- Establish a laboratory classroom for teachers to observe on a scheduled basis.
- Share with the Core Curriculum faculty the duties of record keeping, grading papers, determining quarterly grades, contacting parents, and maintaining discipline.
- Cover classes, if needed, in order for observations of the laboratory classroom to take place.