

## **Cable Academic and Vocational Education Center (CAVEC) at the Connecticut Junior Republic (CJR)**

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### **Description of Curriculum**

The primary goal of CJR's academic education program is empower students to develop their skills and become lifelong learners.

Academic education at CJR focuses on four major subject areas, including English language arts, mathematics, social studies, and science. All students receive instruction in core subject areas during every school day. Students who enter CJR functioning significantly behind grade level are provided with intensive remedial instruction to improve their performance in the classroom. An advanced class is provided for boys who are functioning at a higher level than the average student. All students participate in weekly computer technology, physical education and wellness, and life skills classes in addition to core academic subjects.

A comprehensive curriculum guide provides daily lesson plans for all courses, including English language arts, mathematics, social studies (with an American Studies theme), science, physical education and wellness, computer technology, life skills and all vocational courses of study.

In addition to his academic and enhancement classes, each student has an opportunity to enroll in a vocational course of study at CJR. As a part of this experience, every boy develops a theoretical base for the given course content and uses that knowledge in practical applications in and out of the classroom setting. All students develop and maintain an experiential learning portfolio which integrates their skills in a given trade, life skills, reading, writing, and mathematics, and documents his accomplishments. Instructors may use the portfolio as an instructional guide and assessment tool. Vocational courses of study include: *Building Design and Drafting/Construction, Creative and Fine Arts, Culinary Arts, Graphic Arts, Landscape Design and Horticulture, Power Mechanics, Vocational Agriculture/Animal Science, Vocational Agriculture/Plant Science, Horticulture and Landscape Design and Wood Technology.*

CJR's vocational curriculum uses a standards-based curriculum which was developed utilizing the Connecticut Career and Technical Education Competencies and the Connecticut Technical High School Curriculum Frameworks. These classes offer students a variety of learning experiences appropriate to their capabilities and interests while introducing them to prospective career paths.



## Academic and Enhancement Course Descriptions:

### *Academic Courses*

**English language arts** – The Connecticut Junior Republic English language arts curriculum is based on the four primary principles outlined by *The Connecticut State Department of Education Curriculum Frameworks* (2006). Students will become proficient in reading and responding, exploring and responding to literature, communicating with others, and applying English language conventions. Students will develop reading comprehension, written and oral communication, and critical thinking skills. Through interdisciplinary thematic units and lessons, students will demonstrate an understanding of and appropriate ways to use the English language. Through the use of technology, students will develop a more astute ability to conduct research and use primary and secondary sources. Students will engage in the writing process by brainstorming and outlining ideas, writing and editing rough drafts, attending writing conferences with their teachers and peers, and completing final copies of their work. In order to reinforce specific skills, selected adaptive technology and software will be utilized for given students. Students will develop a sense of, and respect for, the contributions made by various ethnicities to our culture, including literature from the African, Latino, Asian, Arab, Jewish, Eastern European and Native American communities.

**Mathematics** – Upon admission to CJR, students are assessed in order to determine their skills with mathematic computation, calculations, fluency, memory with math facts, ability to successfully engage in timed tasks, observational skills, ability to determine strategies to solve word problems, and an ability to apply mathematical functions to real world living skills. In addition to the standardized achievement testing, teachers administer on-going, formative assessments.

CJR's mathematics curriculum is based on the standards published in the *Connecticut Mathematics Curriculum Framework* (2005). Math courses are primarily individualized (or taught in small group settings) in order to address the varying student needs, deficits and abilities.

Depending on their needs, students may be assigned to either *Basic Math I or II* which addresses remedial skills including telling time, place value, using money, utilizing a ruler, using a simple calculator, as well as simple operational skills, including addition, subtraction, multiplication, and division.

In *Consumer or Business Math*, students develop abilities in personal finance and budgeting, calculating income, banking skills and employment issues.

The primary goals in *Pre-Algebra* are to provide students with an opportunity to complete operations utilizing decimals, fractions, ratios, proportions and percents. Students are also introduced to the use of variables, simple algebraic expressions and equations, and ways to use math in their daily living skills.

Students who show proficiency in *Pre-Algebra* enroll in *Introduction to Algebra or Algebra I*. In this course, students develop skills in the use of real numbers, integers, and algebraic equations. They also learn to complete operations with binomials and polynomials. As students progress, skills in working with linear equations, ordered pairs, quadrants, and slope of a line are introduced and developed.

Students develop an understanding of and ability to utilize geometric concepts in *Introduction to Geometry*. Instructional units include completing operations on a line and a plane, using coordinates, and the use of angles and triangles. Students study the Pythagorean Theorem, and develop an ability to use polygons and quadrilaterals.

Within the mathematics curriculum, students have opportunities for real world applications and integration with their assigned vocational courses.

**Science** – The science curriculum is designed to provide students with an introduction to various themes in physical and life science. The science laboratory teacher is charged with the responsibility of addressing theory, application, and experimentation in the core components of the thematic units and by facilitating reinforcement activities that assist the student in building the bridge between the abstract and reality.

Through the use of various multiple intelligences, students will supplement their understanding of scientific theory, application, and experimentation through research and inquiry-based learning. By developing their research and study skills, students will improve their ability to integrate the core components of the science curriculum with social studies, mathematics, and English. Through the use of current events and multimedia, students will demonstrate an understanding that there are controversies and consequences related to scientific exploration and advancement. Students will demonstrate an ability to formulate, express, and support their opinions as they relate to science and society. By identifying patterns in scientific history, students will develop an ability to predict future trends and needs within the scientific community. Through independent and cooperative research, students will demonstrate an in-depth awareness of the contributions that various cultural groups made to the advancement of scientific study and development. This course is designed by utilizing the *Connecticut Science Curriculum Frameworks* (1998).

**Social Studies** – The Connecticut Junior Republic Social Studies curriculum is based on the four primary social studies principles as described in *The Connecticut State Department of Education Social Studies Curriculum Framework* (1998): history, civics and government, geography, and economics. Given the significant differences in each student's educational background, this curriculum is designed to present topics in social studies from an American perspective thus satisfying the requirements for one Carnegie unit of measure in either a United States History and/or Civics.

Through interdisciplinary thematic units and lessons, students will demonstrate an understanding of given concepts as they relate to historic, current, and ongoing issues of American history and government. Through the use of technology and the Internet, students will develop a more astute ability to conduct research and utilize, access, and evaluate primary and secondary sources. Students will strengthen their critical thinking, reading comprehension, and written and verbal communication skills by actively engaging in discussions that challenge their understanding of existing ideas, support their understanding of newly presented topics, and enable them to articulate their opinions in a clear and concise manner.

#### *Enhancement Courses*

**Computer Technology Integration** – The computer technology curriculum is designed to provide students with an ability to utilize technology in order to assist them in their academic, vocational, recreational and personal pursuits. Primary units of study include *The Impact Computers Have on Society, Utilizing Microsoft Systems, Utilizing Electronic Resources, and Effective & Appropriate Uses of the Internet*. Teachers have the opportunity to utilize technology when developing, implementing, assessing, and evaluating academic lessons. In addition to their formal computer classes, each academic class is assigned a full day to utilize a separate Internet Laboratory in order to conduct research and make use of educational software. This course is designed by utilizing the *Connecticut Learning Resources & Information Technology Curriculum Frameworks* (1998).

**Life Skills and Health** – Students learn skills critical to independent living and to being responsible citizens in their families and communities. Students discuss topics that include community and social responsibility, particularly parenting; the evolving roles of family in their lives; death and dying; and the responsibility they have to make their neighborhood a positive environment. Consumer awareness with an emphasis on personal

finance is taught, including earning and budgeting money, and local laws and ordinances that have an impact on their daily lives. The course offers units of study on the legal system, including the differences between juvenile and adult offenders. Career exploration includes employability and work maturity skills, resume writing and conflict resolution. This course is designed by utilizing the *Connecticut Health & Safety Education Curriculum Frameworks* (1998).

**Physical Education and Wellness** – Students engage in structured physical education on a weekly basis. The core components of this course inculcate a sense of team work, fairness, self-respect, self-esteem and respect for others in competition. The physical education curriculum addresses the goals from *The Connecticut Physical Education Curriculum Frameworks* (2000). By participating in team sports and individual physical activities, students are taught the benefits of developing healthy habits and life style. Formal instruction includes units in weight training and cardiovascular exercise, basketball, swimming, baseball & softball, football, and volleyball. Interested students enroll in and become CPR certified and Lifeguard certified. Developing a healthy life style is a key component of the course. The harmful effects that abuse of substances can have, including nicotine, alcohol, prescription medication and illegal drugs, on the human body, as well as the legal consequences of such abuse, are addressed. Students learn about emergency preparation within their homes and communities. Issues surrounding personal health and hygiene are addressed, including meal preparation, and the importance of physical fitness, medical care, social skills and proper etiquette. The instructor leads students in candid discussion about human sexuality and reproduction, including how young people can protect themselves against acquiring a sexually transmitted disease and HIV/AIDS

### **Vocational Course Descriptions:**

**Building Design and Drafting/Construction** – Students develop an understanding of, and the practical skills required for, employment in the construction and building maintenance fields. Students are introduced to the basic reading and mathematics skills required for carpentry and develop an understanding of, and an ability to utilize computer aided drafting (CAD). Students apply their understanding of basic architectural design to various components of the construction field, including framing, plumbing and electrical work, by completing model structures in and out of the classroom setting.

**Creative and Fine Arts** – These courses introduce students to a variety of skills associated with the production of arts and crafts, including pottery, slip casting, mosaics, textiles, leather, scherenschnitte, origami, candle making, papermaking, sculpture, and design. In the fine arts section, students develop skills in portrait making, printmaking, drawing, and landscape designs. Students apply creative and technical skills by designing and creating projects for campus display, donation to other non-profit organizations and for personal use.

**Culinary Arts** – Students develop an understanding of safety, sanitation, and nutrition in a commercial kitchen and learn how to prepare poultry, seafood, red meats, and produce. Baking techniques for yeast breads, cakes, and pastry are also taught. Cultural diversity is explored through the research and preparation of ethnic cuisines. Students apply their skills by assisting in daily meal preparation for CJR's Litchfield campus, participating in a weekly laboratory workshop, researching and designing menus, and by preparing and serving meals for special events at CJR and in the community.

**Graphic Arts** – Students develop an understanding of, and ability to utilize, specific graphic arts equipment in order to produce printed materials for the CJR agency and projects for the community. Class members learn to operate a Kodak camera, create negatives, plates, and various types of printing presses. Techniques in using and selecting paper, chemicals, and ink are also taught. Additionally, students demonstrate proficiency utilizing tools for cutting, binding, laminating, and folding paper products.

**Power Mechanics** – This course provides students with an opportunity to develop the introductory skills necessary for work in the automotive service industry. Students develop an understanding of proper utilization of hand and air tools, including wrenches, sockets, impact guns, blow guns, air drills, cut-off tools and bench grinders. Basic automotive maintenance, including service for brakes, lights, horns, wipers, fluids, air pressure, and filters is also taught. Students develop skills by servicing automatic and manual transmissions, welding and cutting metal, and utilizing automotive computer systems for diagnostic purposes.

**Vocational Agriculture/Animal Science** – Students are introduced to and develop an understanding of basic animal health, reproduction and nutrition. Students apply their understanding of these topics to the production of poultry, beef, swine and sheep. Students develop an ability to engage in farm management practices, including haying, building and repairing fences and operating agricultural machinery. Students apply their skills by assisting in the day-to-day operations of the CJR Farm and by competing in local agricultural fairs.

**Vocational Agriculture/ Plant Science, Horticulture and Landscape Design** – This course provides students with an introduction to plant science, including horticulture, landscaping and aquaculture. Students study plants, ponds, gardens, insects, small animal life and related components, while developing an understanding of, and an ability to identify, cultivate, and utilize natural resources. Students also develop an ability to utilize plant cultivation tools and small farm machinery. Members of this class participate in a variety of beautification projects on the CJR campus and in the community.

**Wood Technology** – This course is designed to provide students with an opportunity to develop introductory skills in carpentry, cabinetry, and furniture making. Students develop an understanding of different types of wood, use of tools and equipment, and how to plan, design, and construct a variety of projects. Practical application for measurement and layout, drawing and geometry are taught. Students also learn to use sanders and finishers, portable and stationary power and hand tools, and apply their skills by building various projects for campus, community and personal use.

**Independent Living Synthesized Curriculum** – The Connecticut Junior Republic’s Independent Living curriculum is a synthesized guide addressing academic, vocational, and life skills based on the six primary principles outlined by *The Ansell-Casey Life Skills Assessment for Independent Living*. Students will become proficient in career planning and communication, daily living, housing and money management, personal self care, social relationships, and work readiness skills. By engaging in various interdisciplinary thematic modules, students will demonstrate an ability to contribute to society by living independently and developing and strengthening their academic and vocational skills. Through the use of technology, students will develop a more astute ability to conduct research and use primary and secondary sources.

Students will develop their English language arts skills by engaging in the writing process including brainstorming and outlining ideas; writing and editing rough drafts; attending writing conferences with their teachers and peers; and completing final versions of their work. Students will develop mathematical skills by recognizing patterns, completing operations and computations, and applying theories and ideas to practical scenarios that reinforce everyday math concepts. Students will develop critical thinking skills and an in-depth understanding of American civics and history by identifying, analyzing, and explaining the role of the United States and the rights and responsibilities of its citizens in modern times and throughout history. Students will identify and explain the impact that their personal behavior has on their health, the environment, and the laws and regulations that our society depends upon. By utilizing the Connecticut School-to-Career standards and the SCANS Competencies, students will develop their aptitude in given fields of study and industry. Students will recognize the contributions of the arts by studying theater arts and identifying and recognizing how performing artists have influenced and shaped society.

The overarching instructional design for CJR's curricula guide is inquiry-based (constructivism) learning, which provides lessons and connected learning and assessment activities that reinforce the student's ability to engage in independent research and self-guided study.

The primary purpose of this curriculum is to provide specific students with an opportunity for self-guided, independent academic and vocational study and research; an opportunity for specific students returning to their public school environments to have a more efficient and effective transition from residential education to mainstreamed public education; and to support CJR teachers by providing an effective tool for facilitating a positive learning environment while engaging in differentiated instruction.