

# A WORLD-CLASS EDUCATION

## MODEL LABORATORY SCHOOL AT EASTERN KENTUCKY UNIVERSITY

Model Laboratory School guarantees a world-class education for K-12 Model Laboratory School students through a viable curriculum that:

- Provides opportunities for students to develop as leaders and entrepreneurs.
- Develops transferable, transportable skills through practice with feedback.
- Requires students to think critically, creatively, computationally, and quantitatively.
- Challenges students to develop creative solutions to authentic and relevant real-world problems.
- Provides opportunities for students to make cross-curricular and interdisciplinary connections.
- Provides opportunities for school-wide and grade-level shared experiences and courses.
- Emphasizes persistence through sustained inquiry, capstone projects, and presentations.
- Develops strong written and oral communicators.
- Facilitates students' abilities to engineer, design, perform, innovate and create.
- Promotes participation in civic activities as an informed citizen.
- Fosters community through service (learning) and teamwork.
- Fosters individual physical and emotional well-being.
- Builds ability to communicate in a second language and engage in culturally appropriate interactions.

Model Laboratory Schools' curriculum program of studies shall provide a world-class education that prepares students for college and career by addressing the following competencies known as *The Model Core*.

### INQUIRY, COMMUNICATION, AND DATA ANALYTICS

- Plan and conduct sustained research investigations using appropriate tools and media.
- Read, analyze, evaluate, and cite sources and information in qualitative, non-fiction texts.
- Analyze and interpret quantitative data represented in tables, charts, graphs, maps, and infographics.
- Analyze quantitative data and perform statistical tests on the data to draw conclusions.
- Represent quantitative data and information visually through tables, charts, graphs, maps, and infographics.
- Develop logical and valid evidence-based written arguments.
- Communicate orally a perspective using appropriate media to a targeted audience for a particular situation.
- Strategically select and employ purposeful rhetorical and correct syntactical choices.

### QUANTITATIVE AND COMPUTATIONAL REASONING

- Analyze a real-world mathematical problem and determine a method and the tools needed for solving it.
- Translate mathematical information from a single representation or across multiple representations.
- Construct viable mathematical arguments.
- Evaluate the reasoning and validity of a mathematical argument or method.
- Look for and make use of structure and patterns in authentic mathematical contexts.
- Attend to precision, using appropriate notion and mathematical conventions.
- Write and implement code by applying logic and rules to achieve outcomes or results.
- Analyze program code to explain the behavior and conditions that produce results in a program.

### SCIENTIFIC INQUIRY

- Determine a scientific question and method for answering it.
- Analyze and explain scientific concepts, processes, and models in real-world contexts.
- Analyze and explain visual representations of scientific concepts and processes in real-world contexts.
- Create visual representations and/or models of scientific concepts and processes.

### GLOBAL COMMUNICATION AND UNDERSTANDING

- Contextualize and compare perspectives.
- Analyze current events through cultural comparison.
- Read, analyze, and evaluate primary and secondary sources, including images, to draw conclusions about historical, political, social, economic, and geographic developments.
- Analyze geographic patterns and spatial relationships.
- Communicate ideas effectively in discourse to a variety of audiences demonstrating cultural sensitivity and understanding while emulating native speakers.

### CREATING, PERFORMING, DESIGNING, AND ENGINEERING

- Create works of art (literature, visual art, music, dance, drama).
- Perform, present, or publish works of art (literary, visual art, music, dance, drama).
  - Apply theories and principles when creating, performing, designing, or engineering.
  - Apply recursive processes that emphasize practice and persistence and that incorporate collaboration, iteration, critique, reflection, and revision.
  - Design innovative and creative solutions (products, algorithms, program code, lighting designs, stage sets) that solve a problem or achieve a purpose.

### HUMANITIES

- Read/view/listen to, analyze, and interpret a work of art (literature, music, visual art, drama, dance).
- Explain the historical and cultural significance of a work of art (literature, music, visual art, drama, dance).
- Analyze historical and social events and developments.
- Analyze the broader context related to a historical event, development, or process.
- Analyze connections and/or patterns between historical events, developments, and/or processes.

### CIVIC ENGAGEMENT, ENTREPRENEURSHIP, AND FINANCIAL LITERACY

- Analyze and evaluating economic and financial options and choices.
- Analyze options and explain choices related to family life and consumer skills.
- Apply political and economic theories, perspectives, and models in authentic contexts in order to make sound economic and financial decisions.

### FITNESS AND WELLNESS

- Analyze choices and behavior on fitness, physical health, and emotional and mental wellness.
- Participate in activities that promote lifelong physical activity and wellness.
- Demonstrate individual strategies and effective teamwork.

