

# Curriculum Embedded Activities

## **Kindergarten:**

**Language Arts - *Jobs in School*** During shared reading, select a text that focuses on the various jobs within a school (e.g., teacher, principal, custodian, IT, librarian). Students will identify jobs in the book and make comparisons among illustrations within the book (e.g., types of tools or resources used, working alone or in a group, skills involved). Guide students through a tour of the school building identifying the different settings in which staff work (e.g., school office, cafeteria, supply room).

**Math- *100th Day of School Artists*** Students will participate in a celebration of the 100th day of school. Students will make 100 day collages to represent the number. Students will learn about how artists use everyday objects to create art. Students will meet a real artist and learn about what it is like to be a professional artist.

**Social Studies - *Career Learning Centers*** Organize the classroom to represent the larger community with various career-based learning centers. (i.e. reading center, communications; toy animals; animal care; kitchen: agriculture or hospitality; dress-up; textiles or retail; toy cars; automotive.) Students will role play, recognizing their responsibilities within each center as those of the respective career fields. Lead a discussion with students where they will identify the careers they experienced.

**Science - *Let's Be a Weather Person!*** Students will maintain a class weather chart where they will record each day's weather. As a class, students will discuss types of jobs that are related to weather or seasons. (e.g., meteorologist, landscaper, construction worker, truck driver.) Discuss examples such as, "What jobs are done outdoors? Which jobs are done in the summer? Which jobs are done in the winter?"

## **First Grade:**

**Language Arts - *Learning About Careers*** During shared reading, select a text with a career theme that highlights different skills. After the read aloud, lead a discussion with students allowing them to identify how these skills relate to both the classroom and workplace.

**Math -*What Does the Survey Say?*** Students will make graphs to record the results of a whole class survey. They will learn how mathematicians make predictions and represent data with charts. They will talk with a real statistician.

**Social Studies - *Community Helpers*** Study local communities and jobs in the community. Travel to a local government entity (Montgomery City Building, Blue Ash City Building) to learn about the jobs in the community.

**Science - *I Want to be a Scientist!*** Scientists use their senses to observe. Connect with a real scientist to interview them about how they use observation in their investigations.

## **Second Grade**

### **Language Arts *Doing What Authors Do***

Teachers can have an Author Study, arrange for an Author Visit, School Librarian or local public librarian invited to visit. Relate these samples to how one would follow these career paths.

### **Math *The History of Money and Banking***

Students will use money to solve real world word problems. You could invite a local banker to come in as a career connection to uses of money.

### **Science *Meteorology***

Discuss meteorology and its meaning in the real world. Invite a meteorologist to visit.

### **Social Studies *Producers and Consumers***

Use your Economic Literacy unit of study to connect real world careers, sharing examples of producers and consumers in our community.

## **Third Grade**

### **Language Arts *Biography: Learning About Great People Who did Great Things***

Connect your unit of research leading to your presentation of famous people in history to their careers. Presentation in the form of a Wax Museum can now include that history of careers.

### **Money/Math *How Do You Slice Pizza? Using Fractions in Careers***

\*Idea in Careers Connections is using your fraction unit from something such as TB and connecting it to real world use of fractions in careers. Math Trailblazers lesson.

### **Science *Chemistry Careers***

Present the career path of becoming a Chemist. This will create the connection for visiting the Chemistry Department at UCBA.

### **Social Studies *The History Detectives***

Introduce careers related to Cincinnati history, specifically community businesses. An example would be P&G throughout the city.

## **Fourth Grade**

### **Math- *Using Data to Predict Future Growth***

In Trailblazers Unit (Arm Span vs. Height) invite someone in the medical field to discuss measurements of babies, children and adults. Discussion around percentiles, predictions of height/weight and trend lines related to scatter plots.

### **Language Arts-- *What Do Writers Do?***

Discuss jobs that people have in writing. Tie in to opinion writing, historians, novelists, poets, and columnists. Highlight the different careers in writing during the trip to the National Underground Freedom Center. Talk to the in-house curator about writing careers found within the museum.

### **Science- *Dinosaur Hunters!***

Prior to the trip to UC/BA (Fossil Lab) trip teachers will introduce possible careers related to Fossils. (paleontologists, geologists, archeologists, "dirt doctors" etc.)

### **Social Studies- *"How Would YOU Run for Office?"***

Research and explain requirements among different elected officials. If possible, invite a guest speaker.

## **Fifth Grade**

### **Language-- *"I Want to be a Writer...Where do I Start?"***

Capitalize on the visiting author(s). PTO and/or Barnes & Noble provided opportunities for all students to hear authors talk about the writing process. Connect this learning to the writing process used in the classroom. What careers can you have as a writer? What kinds of audiences will you reach?

Sam Bloom/Blue Ash library will visit this in the spring & do a 45 minute presentation of books that spark curiosity in a variety of careers.

### **Math- *Harnessing the Power of Math: Innovation, Precision and Forecasting***

Join the sixth grade team for a week long focus on careers in Mathematics. This will take place in late May. We plan to feature a different career path each morning on announcements during the week long event to increase awareness of the children in the role a strong mathematics background plays in careers. During the week we will hold team-based assemblies where community members come to our school to speak to the children about how mathematics impacts their chosen career paths. We plan to look into involving high school students to come to the building to talk to our students about the advantage of a strong mathematical background in determining career paths as they further their studies at the college level.

### **Science---*Design Challenge***

Force and motion studies and basic physics.

### **Social Studies--- *The University of Cincinnati Economics Center Experience***

Geography- Cartographer, Satellite/GPS App Creator, Pilot, Tour Guide, National Park Service

Regions- Travel Agent, Tourism Industry-Variou, Agriculture, Environmentalist, Energy Industry, Construction

Ancient Civilizations- Anthropologist, Archeology, College Professor or Educator, Tourism, Museum Curator, Author

Government- Lawyer, Judge, Politician, Civics, Public Service, Civil Engineer, Urban planner/developer

Economics- Stockbroker, Banker, Financial Planner, Wealth Management, Entrepreneur, Business Administration

### **Sixth Grade**

#### **Language--*From the Idea to the Published Work: Author's Craft in Action***

Continue to build on the visiting author(s) & their message. Perseverance is required in the writing process no matter the purpose of the piece (persuade, entertain, inform). This determination is required in all careers that are based on the field of writing.

Invite published author Sycamore High School senior, Taylor Evans to speak to 6th graders, as she has done for the last two years to the classes about her writing process. She began her novel in the 6th grade and persevered through high school and ultimately became a published author in the fall of 2014 (her senior year) for her book, The Unknown. Perhaps she can detail for the students the process of becoming a published author.

#### **Math- *Math Across Careers---The Universal Language***

Join the fifth grade team for a week long focus on careers in Mathematics. This will take place in late May. We plan to feature a different career path each morning on announcements during the week long event to increase awareness of the children in the role a strong mathematics background plays in careers. During the week we will hold team-based assemblies where community members come to our school to speak to the children about how mathematics impacts their chosen career paths. We plan to look into involving high school students to come to the building to talk to our students about the advantage of a strong mathematical background in determining career paths as they further their studies at the college level.

### **Science--- *Biology to Improve Lives***

All sixth grade students will take a trip to the University of Cincinnati Blue Ash to discover the careers related to biology during an interactive lab experience. This is part of the INSPIRE trip series.

### **Social Studies--*"What do Politicians REALLY Do?"--- An In-Depth Study***

6th Grade Social Studies covers the areas of geography, economics, and history. Some careers that would be related to these studies are: Urban Planner, Cartographer, Politician, Economist, Entrepreneur, Marketing, and Educator.

## **Seventh Grade**

### **Language Arts**

*Investigate a career as a writer/journalist.* How does this career require you to read, write and communicate well? A student from Sycamore HS or a local journalist will speak to all 7th graders about the skills and knowledge needed to become a writer or journalist. Students will then write essays and poems and enter them into the Montgomery Women's Club contests.

### **Science**

#### ***Environmental (Water) Hazard Careers***

Students will research or investigate an actual environmental event (e.g., a specific release of a toxin or contaminant) and determine how it impacted each of Earth's spheres. Students will identify a body of water that has been flagged as an environmental hazard. They will identify careers needed to assist in analyzing the problem, developing a solution, and acting to resolve the issue. Students will identify which organizations and agencies to consult, how they will mobilize the necessary resources, and their specific role in the project.

### **Math**

#### ***Sampling in the Real World***

Sampling is a technique that is used in statistics to gather information about a lot of people or products without testing each one. There are companies that gather this kind of information from a small number of people and make predictions about how a larger group will think or act. Students will research:

- Nielsen sampling for television show ratings,
- How ratings for radio programs are determined by Arbitron,
- How does Cincinnati Magazine determine their "Best Of" issue, like best hamburger in Cincinnati,
- Product testing by Cree or Sylvania (light bulbs), Proctor and Gamble products, or any company/ product of their choice.

Students will study sampling techniques including convenience, systematic, and random sampling, along with the study of populations and bias.

## **Ancient World History**

**Silk Road Project.** Students design a 3D map of the Silk road trade routes from Asia to Europe. They focus on logistics and supply along the route as well as mapping the most direct and obstacle free route to Venice and Genoa. This exposes the students to the areas of cartography, geography, archaeology, logistics and economics.

## **Eighth Grade**

### **Language Arts**

***Connections to careers in the military.*** Students will gain knowledge of careers in the military by listening to speakers (veterans and current soldiers), participating in our school Veterans and Memorial Day programs and through cross curricular connections to world history. They will learn what specific skills in reading, writing and communication are required in careers in the military. Students will then write thank you and personal letters to soldiers.

### **Science**

#### ***Genetic Related Careers***

Students will research the roles of careers related to genetics, such as:

- Geneticists: expertise in the study of genetics.
- Veterinarian and Vet Techs: managing the health and wellness of animals, understanding animal reproductive behaviors and patterns.
- Biologists: study plants and animals and their environments.
- Medical and Animal Scientists: develop and improve products by conducting research and experiments. Students will conduct career interviews, through a workplace visit or by telephone, to gather information that describes the real-work context of this classroom content.

### **Math**

#### ***Using Algebra in the Real World***

In Science, Engineering, Physics and Chemistry, the term *parts per million* is used to describe small values of dimensionless quantities, such as pollutants in water. These values are expressed in scientific notation.

Perhaps the most real-world application of algebra is the concept of the linear equation. Students will review examples of the best cell phone plan, cab rates in various US cities, simple vs. compound interest, how populations of animals changed through the years, how the amount of pollutants has changed over the past 50 years in the Ohio River, or their own choice of change over time.

## **American History**

**Student Supreme Court Cases.** Students are given the opportunity to read and discuss landmark US Supreme Court court cases that concern the areas of civil and student rights, free speech and religious freedom. Students must argue the merits of either side of the case and present the constitutional rationale for their decision. Students are exposed to the areas of law enforcement, law, as well as the use of persuasive writing to support their positions. Students must also cite evidence to answer questions and formulate arguments.

**Careers in the military.** Students will gain knowledge of careers in the military by listening to speakers (veterans and current soldiers), participating in our school Veterans and Memorial Day programs.