

Intermediate 3-4 Thematic Project-Based Curriculum

School-Wide Theme: **Connections**

In the "Connections" year, our 3-4 have two investigations, one each semester: "Arizona" and "Prescott History".

Investigations: Arizona

Guiding Questions

Water	Plants	Animals	Geography	Arizona History
<ul style="list-style-type: none">• What are the physical and chemical properties of water?• Why is water important to living and non - living things?• How are people, plants and wildlife impacted by pollution throughout a watershed?• How can we (as a society and individuals) conserve our state's limited water supply?• What role does water play in shaping our landscape and influencing the planning and development of communities?• What role does water play in the formation of natural landforms such as canyons, caves, and other geologic formations?	<ul style="list-style-type: none">• What plants are native to Arizona?• What are the functions of various plant structures?• How do plant structures vary in different species?• What is the life cycle of plants?• What physical adaptations do plants need to live in an arid area?	<ul style="list-style-type: none">• What animals are native to Arizona?• What physical and behavioral adaptations do animals have to help them survive in Arizona's hot and arid climate?	<ul style="list-style-type: none">• How do elevation, temperature and precipitation differences influence the flora and fauna in the Arizona's diverse bioregions (life zones)?• What physical and political features make up our state?	<ul style="list-style-type: none">• What key events led to Arizona's statehood?• Who were key players in Arizona's history? Pre- and Post-Statehood• What resources and events led to Arizona's economic development?• What are Arizona's most notable state symbols?

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Learning Targets

Water	Plants	Animals	Geography	Arizona History
<p><u>Enduring Understandings:</u></p> <ul style="list-style-type: none"> Water is a vital resource that all living things need to survive. The citizens of Arizona rely on a limited water supply, and should actively conserve this important natural resource. Students will recognize various sources and types of pollution within a watershed. They will understand that point source and non-point source pollution can have negative impacts on plants, people and wildlife throughout a watershed. Students will recognize water's role in shaping Arizona's unique landscape and influencing the incredible diversity of plant and animal life in the state. People must consider water quality, water quantity and its movement through the watershed when planning and developing urban communities. 	<p><u>Enduring Understandings:</u></p> <ul style="list-style-type: none"> Plants have different parts and structures that perform different physiological functions. Plants species change over time in response to environmental conditions. These adaptations increase a plant's ability to survive in each environment. Arizona's flora exhibit many adaptations that allow these plants to flourish in a hot, dry environment. Plants are an important part of the water cycle, nutrient cycle, and they are an important food source for people, insects and wildlife. Plants rely on various pollinators, wind, and vegetative propagation to reproduce themselves. 	<p><u>Enduring Understandings:</u></p> <ul style="list-style-type: none"> Arizona is a state with incredible biodiversity including a wide variety of vertebrate and invertebrate species. Animal species change over time in response to environmental conditions. These physical and behavioral adaptations increase an animal's ability to survive in each environment. Arizona's fauna exhibit many adaptations that allow these animals to flourish in a hot, dry environment. Each animal species has unique habitat and dietary needs. Animals also have many complex predator and prey relationships. The need to hunt, hide and protect themselves influences the behavior and physical characteristics of all animal species. 	<p><u>Enduring Understandings:</u></p> <ul style="list-style-type: none"> Physical and Political features make up our state. Our location in relation to our city, county, state, country and continent. Students will be able to read different types of maps, and recognize map features. There are many important natural landforms in Arizona. Arizona is made up of distinct life zones based on elevation, temperature, and precipitation differences. 	<p><u>Enduring Understandings:</u></p> <ul style="list-style-type: none"> Arizona's pre-Columbian tribes developed complex agricultural societies (innovations & diet.) They also made shelters, and traded with other tribes. Spanish Explorers set up missions throughout the Southwest and tried to assimilate Native Americans to their religion and culture. Westward expansion led to the development of communities in Arizona. Mining, agriculture, and climate help bolster Arizona's economy. Arizona has many notable state symbols that represent special features of our state.

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<p><u>Key Learning Experiences:</u></p> <p>Verde River Field trip</p> <ul style="list-style-type: none"> • Water quality testing • Macroinvertebrate Sampling • Native Birds <p>Tucson Field Trip</p> <ul style="list-style-type: none"> • Sabino Canyon Riparian Area • Kartchner Caverns <p>Interactive Watershed Models</p> <ul style="list-style-type: none"> • Macroinvertebrate Mayhem Game <p>Water Smart Gardening</p> <ul style="list-style-type: none"> • Soil moisture and mulch experiment • Harvesting Rainwater <p>Celebration of Learning- create a water conservation educational display</p>	<p><u>Key Learning Experiences:</u></p> <ul style="list-style-type: none"> • H2O Olympics • Flower dissection • Gardening • Transpiration Experiment • Just Passing Through (plant roots and erosion game) • Celebration of Learning- Students recreate the life zones of Arizona. <p>Tucson Field Trip</p> <ul style="list-style-type: none"> • Desert Plants at the Sonoran Desert Museum • Sabino Canyon (Saguaros) 	<p><u>Key Learning Experiences:</u></p> <ul style="list-style-type: none"> • Predator and Prey Dance • Animal Masks • Celebration of Learning- Students create a living history museum in which they play the part of native animals in the various Life Zones of Arizona 	<p><u>Key Learning Experiences:</u></p> <ul style="list-style-type: none"> • Me on the map activity • Map gallery walk • Map Reading • Watershed mapping activities 	<p><u>Key Learning Experiences:</u></p> <ul style="list-style-type: none"> • Arizona's First People • Arizona History Jigsaw presentations (using google slides) • Arizona History Timeline • Tuzigoot Field Trip • Spanish Explorers Center • 5 C's cube • Small group research

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Topics

Water	Plants	Animals	Geography	Arizona History
<ul style="list-style-type: none"> • Properties of Water • Water Pollution and Water Quality Testing • Aquatic macroinvertebrates as indicators of water quality • Watersheds and Watershed Management (flooding, irrigation, urban planning, etc.) • Water Conservation • Rainwater Harvesting (active and passive) • Caves, canyons, weathering and erosion • Cave formations (various speleothems) 	<ul style="list-style-type: none"> • Pollination • Plant Structures and Variation • Photosynthesis • Transpiration • Nutrient Cycling • Adaptations • Biomimicry 	<ul style="list-style-type: none"> • Range • Diet • Habitat • Physical Description and Features • Life Cycle • Predator and Prey relationships • Adaptations and inheritance (natural selection) • Biomimicry 	<ul style="list-style-type: none"> • CI Physical vs. Political Features of AZ • Landform regions of AZ (plateau, mountain, desert) • Important places (Grand Canyon, Tuzigoot, Verde River, Kartchner Caverns, Sabino Canyon, Prescott Watershed, etc.) • Mapping Skills • Arizona's diverse habitats and vertical life zones 	<ul style="list-style-type: none"> • Mogollon, Anasazi, Ancestral Puebloans • Spanish Colonization • Influence of American Explorers • Events that Led to AZ becoming a state • Impact of Native Americans, Hispanics, and newcomers from the US and the world on the Culture of AZ • Conflict between newcomers and AZ natives • Economic Development of AZ • 5 C's • Transportation • Key Individuals • Formation of Native American Reservations • State symbols, flag, Statehood Day, etc.

Projects

Water	Plants	Animals	Geography	Arizona History
<ul style="list-style-type: none"> • "water drop" assignment (personal water wise practices) • Water Conservation Essays • Watershed Map (center) • Water cycle mini book (center) • Cave (sink hole and speleothem) models. • Fables 	<ul style="list-style-type: none"> • Arizona Plant Model • Arizona Plant Identification Card • Xeriscape your yard center • Plant Diagrams • Pressed flower parts (flower dissection) 	<ul style="list-style-type: none"> • Arizona Endangered Animal Center • Animal Clue Writing Piece • Animal Portraits and Masks • Macro animal drawing • A Day in the Life Narrative • Cave animal creation 	<ul style="list-style-type: none"> • Me on the map • Physical vs. Political map study • Watershed Maps • Paper Watershed Model 	<ul style="list-style-type: none"> • Arizona History Digital Presentation • Arizona History Timeline • Spanish Explorer's Center • 5 C's Cube • Spanish Missions timeline

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Assessment

Water	Plants	Animals	Geography	Arizona History
<ul style="list-style-type: none"> • Water conservation essays • Watershed Center • Water Cycle Center 	<ul style="list-style-type: none"> • Plant 3D Model • Plant Informational Card 	<p>Writing</p> <ul style="list-style-type: none"> • Who am I? • A Day in the Life <p>Arts</p> <ul style="list-style-type: none"> • Animal Close Up • Animal Portrait • Mask 	<ul style="list-style-type: none"> • Me on the Map • Watershed Mapping 	<ul style="list-style-type: none"> • Arizona History Digital Presentation • Arizona History Timeline • 5 C's Cube • Arizona Brochure

Multiple Intelligences

Project-Based	Classification	Human Body	Weather	Simple Machines
<ul style="list-style-type: none"> • Bodily Kinesthetic • Intrapersonal • Interpersonal • Mathematical Logical • Naturalist • Verbal Linguistic • Visual Spatial 	<ul style="list-style-type: none"> • Bodily Kinesthetic • Intrapersonal • Interpersonal • Naturalist • Verbal Linguistic • Visual Spatial 	<ul style="list-style-type: none"> • Bodily Kinesthetic • Intrapersonal • Interpersonal • Musical Rhythmic • Naturalist • Verbal Linguistic • Visual Spatial 	<ul style="list-style-type: none"> • Intra Intrapersonal • Interpersonal • Naturalist • Verbal Linguistic • Visual Spatial 	<ul style="list-style-type: none"> • Bodily Kinesthetic • Intrapersonal • Interpersonal • Verbal Linguistic • Visual Spatial

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School-Wide Theme: Connections

Dance & Visual Arts

Third Quarter

Movement

1. Student Choreography Project: intro to small group collaboration in dance, a spatial study. Using Over, Under, Around, and Through for spatial inspiration students use negative space and stillness to create small dances together.
2. Student Choreography Project 2: creating choreography in groups of 5. Using unison movements, students choreograph Predator and Prey Dances together. Their movement must fit in to 3 sets of 8counts, there must be at least 2 level changes and they must use both sustained and sharp movements.

Visual Arts

1. Bird Relief prints based on wildlife in Arizona
2. Cow collage pieces based on 5 Cs
3. Copper-inspired colored pencil still-life based on 5 Cs
4. Citrus-inspired oil pastel still-lives based on 5 Cs (Ashley's class only) due to having more Tuesday/Thursday classes than Monday/Wednesday art classes

Fourth Quarter

Movement

1. Continued work on "Predator, Prey", adding on teacher's choreography as well.
2. Mini Celebration Performance: students perform "Predator, Prey" dance, showcasing their work

Visual Arts

1. Macro drawing of part of Arizona animal of study
2. Acrostic poem on AZ. animal of study
3. Acrylic painting of full-body Arizona animal of study
4. Mask based on Arizona animal of study

"Arizona" Celebration

Our Celebration of Learning is a living museum. Students choose an animal and plant, are assigned to the appropriate vertical life zone of their plant and animal. They will study the animal and plant in depth. They create a 3D model of their plant and wear a mask that is representative of their animal. As people circulate through the vertical life zones each student will teach the audience about their animal and interact with the guests. They will also perform a predator and prey dance.

Intermediate 3-4 Thematic Project-Based Curriculum

School-Wide Theme: Connections

Investigations: Prescott History

Guiding Questions

<u>Environment's Influence</u>	<u>Key Events</u>	<u>Historical People</u>	<u>Modern Prescott</u>	<u>Arts</u>	<u>Daily Life</u>
<ul style="list-style-type: none"> How do natural resources, climate, and geography attract people to central Arizona? Prescott? 	<ul style="list-style-type: none"> What key events shaped Prescott's early history? 	<ul style="list-style-type: none"> Who were key players and leaders in early Prescott? 	<ul style="list-style-type: none"> How have jobs changed? How has Prescott changed? Why do people still want to move here? 	<ul style="list-style-type: none"> How did the arts influence Prescott's culture? 	<ul style="list-style-type: none"> What skills were needed in and what jobs did people perform in their daily life?

Topics

<u>Environment's Influence</u>	<u>Key Events</u>	<u>Historical People</u>	<u>Modern Prescott</u>	<u>Arts</u>	<u>Daily Life</u>
<ul style="list-style-type: none"> Geology Weather Mining Watershed Fur trapping Logging Renewable Resources 	<ul style="list-style-type: none"> Yavapai Tribe Walker Party 1900's Fire Railroads First Capitol Fort Whipple & Civil War Mining (for learning goals see Environment column) 	<ul style="list-style-type: none"> Chinese Americans Pauline Schindler O'Neil Bucky Sharlot Hall Joseph Walker Viola and Sam Jimulla Carlos Montezuma Gail Gardner William Prescott Robert Groom The Miller Brothers John Noble Goodwin 	<ul style="list-style-type: none"> Retirement Housing Second Homes Nature Climate Public Land Cost of Living 	<ul style="list-style-type: none"> Native Art Folk Arts Homemaking Arts Music 	<ul style="list-style-type: none"> Rodeo Ranching Quilting Candle making Boot making Mining

Intermediate 3-4 Thematic Project-Based Curriculum

School-Wide Theme: Connections

Products

<u>Environment's Influence</u>	<u>Key Events</u>	<u>Historical People</u>	<u>Modern Prescott</u>	<u>Arts</u>	<u>Daily Life</u>
<ul style="list-style-type: none"> • Mini Mountains of Prescott • Sketch of Prescott Geography • Map of Prescott watershed • Mining: Play and potential student driven projects 	<ul style="list-style-type: none"> • Teacher led Yavapai Tribe Project • Student led project (choose between a railroad, mining, Fort Whipple, fire) 	<ul style="list-style-type: none"> • Centers • Biographies 	<ul style="list-style-type: none"> • Current Event Discussions • Make a map of their community • & community flip book. • Letter to editor discussing current issues in Prescott 	<ul style="list-style-type: none"> • Boot Painting • Songs and Music with Jen Harvey and Kerry Johnson 	<ul style="list-style-type: none"> • Field Trips (bootmaker, candlemaker, etc.) • Lassoing with Guest Speaker • Rodeo Center & Learning experiences with experts

Multiple Intelligences

<u>Environment's Influence</u>	<u>Key Events</u>	<u>Historical People</u>	<u>Modern Prescott</u>	<u>Arts</u>	<u>Daily Life</u>
<ul style="list-style-type: none"> • Naturalist • Verbal Linguistic • Kinesthetic • Visual Spatial • Mathematical 	<ul style="list-style-type: none"> • Verbal Linguistic • Kinesthetic • Musical • Visual Spatial • Interpersonal • Intrapersonal 	<ul style="list-style-type: none"> • Verbal Linguistic • Visual Spatial • Kinesthetic • Inter & Intra 	<ul style="list-style-type: none"> • Verbal Linguistic • Inter and Intrapersonal • Visual Spatial • Kinesthetic 	<ul style="list-style-type: none"> • Musical • Visual Spatial • Kinesthetic 	<ul style="list-style-type: none"> • Kinesthetic • Visual Spatial • Interpersonal • Intrapersonal • Mathematical

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School-Wide Theme: Connections

Learning Targets

<u>Environment's Influence</u>	<u>Key Events</u>	<u>Historical People</u>	<u>Modern Prescott</u>	<u>Arts</u>	<u>Daily Life</u>
<p>Enduring Understandings:</p> <ul style="list-style-type: none"> Identify and describe Prescott's geographic features (Thumb Butte, Granite Mtn., etc.) and the geological process that helped them form. Recognize that Prescott's watershed supplied life to the Prescott area. Discuss the impact mining had on the Prescott area (esp. Native peoples.) <p>Key Learning Experiences:</p> <ol style="list-style-type: none"> a. Hike Thumb Butte b. Build models of local mountains c. Volcano and geology studies (fast land changes) d. Downtown Geology Scavenger Hunt a. Monsoons b. Climate studies c. Discussion of Prescott watershed. a. Sharlot Hall b. Student Driven Projects c. 4th graders teach 3rd graders about gold panning. 	<p>Enduring Understandings:</p> <ol style="list-style-type: none"> Recognize that Yavapai were the first peoples in this area and see how their lives were influenced by western settlement. Discuss the journey of the Walker Party and their impact on Central AZ and Prescott's history. Explain the impact the fire had on Prescott and show how people responded to the fire (innovative architecture that still exists.) How the railroad expedited the growth and economy of early Prescott How the history of our state influenced Prescott not becoming a capital, as well as how Prescott's history influenced Arizona's development. Fort Whipple's connection to mining, US History (Civil War,) and Native Peoples <p>Key Learning Experiences:</p> <ul style="list-style-type: none"> Prescott History Play Field Trips (Sharlot Hall, Historical tour, Fort Whipple) Project based learning (student led) Writing 	<p>Enduring Understandings:</p> <ul style="list-style-type: none"> Distinguish how different people played a key role in Prescott's development. <p>Key Learning Experiences:</p> <ul style="list-style-type: none"> Chautauqua (Sharlot Hall, William Prescott) Research at Sharlot Hall 	<p>Enduring Understandings:</p> <ul style="list-style-type: none"> Communities change and are influenced by events and people. Connections between Prescott hardships and resilience. <p>Key Learning Experiences:</p> <ul style="list-style-type: none"> Field Trips Community member interactions 	<p>Enduring Understandings:</p> <ul style="list-style-type: none"> Design and create a cowboy boot with Ms. Lisa Student will experience creating some of the arts (folk arts.) Student will make portrait of Prescottonian they studied Students will learn and perform songs related to Prescott history <p>Key Learning Experiences:</p> <ul style="list-style-type: none"> Boot painting Centers 	<p>Enduring Understandings:</p> <ul style="list-style-type: none"> Understand the differences between early and modern life in Prescott <p>Key Learning Experiences:</p> <ul style="list-style-type: none"> Field Trips where students will see both early Prescott history and then can compare that to their daily life.

Intermediate 3-4 Thematic Project-Based Curriculum

School-Wide Theme: Connections

Assessment

<u>Environment's Influence</u>	<u>Key Events</u>	<u>Historical People</u>	<u>Modern Prescott</u>	<u>Arts</u>	<u>Daily Life</u>
<ul style="list-style-type: none"> Assessed on quality of Mountain Books, centers and science activities 	<ul style="list-style-type: none"> Prescott History Presentations & Book 	<ul style="list-style-type: none"> Lucy Calkins Informational Writing rubric to assess understanding of Prescottonian & Book 	<ul style="list-style-type: none"> Formative assessment based on child's participation in discussion 	<ul style="list-style-type: none"> Observed Participation Final Performance Art Pieces 	<ul style="list-style-type: none"> Discussion of how life has changed Completed Venn Diagram & 5 paragraph writing piece using Lucy Calkins' boxes and bullets.

Arts

<u>Quarter 1 Movement</u>	<u>Quarter 1 Visual Arts</u>	<u>Quarter 2 Movement</u>	<u>Quarter 2 Visual Arts</u>
<p>1. Movement Studies and Explorations- Monsoons- Using qualities of movement such as force, density, slow, light, quick, etc., as well as the use of rhythmic body percussion and concepts around "negative space", students represent, through movement, high and low weather pressure systems. This monsoon dance piece is performed in the Prescott History Celebration.</p> <p>2. Railroad Dance- Using rhythmic pattern and repetitive movement patterns inspired by pedestrian railroad work gestures, students learn choreography to be included in Prescott History Celebration.</p> <p>3. Cavalry March- Using rhythmic and spatial patterns, students learn a marching dance to traditional music that was played at the Historic Fort Whipple in Prescott, AZ from the early 1900's.</p>	<p>1. Connections piece with various media in a circle-- nature-based, tied in with school wide theme of connections</p> <p>2. Monsoon watercolor piece as tied in with monsoon and weather studies</p>	<p>1. Square Dance- Students learn the history of square dancing in Prescott and then learn a variation of a traditional square dance to be performed at the Prescott history Celebration.</p> <p>2. 1900's Fire- Students learn an original song and dance that tells the story of the 1900's fire in Prescott, AZ to be performed at the P.H. Celebration</p> <p>3. Mining- Students learn an original song and dance. Percussion (drums, bells, etc.) Xylophones used in music portion</p> <p>4. Prescott History Celebration Performance: A culmination of student learning</p>	<p>1. Copper Repousse piece tied in with baskets/symmetry</p> <p>2. Clay tile piece based on nature studies-- botanical forms in Arizona</p> <p>3. Watercolor pencil portrait based on historical Prescott figure students were studying</p>

Celebration of Learning

Prescott history play that includes the Yavapai Tribe, Mining, Fort Whipple, Railroads and the 1900's fire as Prescott's key historical events. In addition to student projects, writing, and artwork are displayed as a museum piece.