Grade Level	3	**School(s)**		**District**	*Chino Valley Unified School District*
Timeline:		**Topic:**		**NGSS PE(s)**	Instructional Segment 3: Surviving in Different Environments (Framework Chapter. 4, pg. 34) 3-LS4-3: Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all. (conceptual model)
CA Science Framework: https://www.cde.ca.gov/ci/sc/cf/cascienceframework2016.asp **(Look to Chapter 11 for information on 5E Lessons)**					
DCI focus(es)	LS3.A: Inheritance of Traits LS3.B: Variations of Traits LS2.C: Ecosystem Dynamics, Functioning, and Resilience LS4.A: Evidence of Common Ancestry and Diversity LS4.C: Adaptations LS4.D: Biodiversity and Humans ETS1.A: Defining and Delimiting Engineering Problems ETS1.B: Developing Possible Solutions			**CCC focus(es)**	CCC-1: Patterns CCC-2: Cause and effect CCC-3: Scale, Proportion and quantity CCC-4: Systems and System Models
CCSS Math	MD.2, MP.5, 3.MP.3			**SEP focus(es)**	SEP-2: Developing and Using Models SEP-4: Analyzing and Interpreting Data SEP6: Constructing Explanations (for science) and Designing Solutions (for engineering) SEP-7: Engaging in Argument from evidence
Environmental Principles & Concepts	**Principle I**: The continuation and health of individual human lives and of human communities and societies depend on the health of the natural systems that provide essential goods and ecosystem services. **Principle II**: The long-term functioning and health of terrestrial, freshwater, coastal and marine ecosystems are influenced by their relationships with human societies.			**History/Social Sciences**	

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	Principle III: Natural systems proceed through cycles that humans depend upon, benefit from and can alter. **Principle IV**: The exchange of matter between natural systems and human societies affects the long-term functioning of both.		
CCSS ELA / CA ELD	W.3.1,7; RI.3.1, 3, 5, 7; SL 3.1 ELD.PI.3.1, 10, 11	**Physical Education**	
VAPA: Visual & Performing Arts		**Social & Emotional Learning**	

LEARNING SEQUENCE PLAN

ENGAGE
- Phenomena
- Questioning
- Prior knowledge

How an Arctic Squirrel Survives Winter (video 4:10) *Play WITHOUT sound

- Have students watch the video. While watching, students document in their science notebook to the following questions:
- Teacher prepares students to think about these questions before they view the video. Repeat video (optional).
  - What do I notice? (evidence-based observation)
  - What do I wonder? (ask questions)
  - What does this video remind me of? (connect to past experiences)
- Teacher charts student responses on chart paper for later class discussions.

EXPLORE
- Build own meaning
- Tinker
- Models

Environments and Animals (click link for 8 pictures)

- Display 2 pictures per table - showing two types of similar habitats (ex: deciduous forest compared to rain forest)
- This activity is first completed in silence
- Students investigate 2 pictures at each station (total of 8 pictures)
- Students document their thinking at each station to process the information (they can write comments, make observations, write questions, etc.)
- Students can comment on others' comments (Suggestion: class norms should be in place about commenting on other students' remarks)
- Teacher notifies students when to rotate to the next station
- At the end of the activity, students come together for a class discussion answering the following questions: (students can use all information: journals, information on tablecloths, videos shown)
  - What have we learned?
  - What questions do we have?
  - What actions do we want to take now?
- At end of class discussion, teacher guides students to discover the topic of study=Surviving in Different Environments
- Students document class discussion in science notebooks
- Students reflect on the tablecloth in notebooks by answering these questions:
  - Describe the different environments.
  - How does the environment affect living organisms?
  - How do organisms' traits help them survive in different environments?

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EXPLAIN • Communicate understanding • Apply vocabulary • Research • Models	Watch video What is a Habitat? (duration 5:45) • Students are expected to construct an argument with evidence on how an organism survives in its environment. • Have students think back to the phenomena, the tablecloth activity and the video "What is a Habitat" (Remind students to include movement in their models---show movement with arrows) Students begin reading the following materials: Students begin reading the following material • Read in *Wonders* Literature Anthology, ***Amazing Wildlife of the Mojave*** *pg. 326* • Read in *Wonders* Leveled Reader Unit 6 Week 4 – *African Cats* • Animal Habitats (video 3:44) Talks more specifically about the animals that live in each habitat Have students close read the article about their assigned habitat (resources provided are from Gale resource in Class Link) They may do additional research on computers for specific evidence on the animals and plants that can be found in their habitat. • Divide students into small groups to create a model (poster, diorama, etc.) of their habitat. Include evidence of how an animal/plant can survive in that particular environment. (poster, presentation, essay, etc.) ○ Desert ○ Ocean ○ Tundra ○ Grassland ○ Rain Forests ○ Fresh Water • Have students Close Read the following articles • Close Reading Procedures: ○ Students read the article first ○ Students go back and circle important, new, and unknown words ○ Students underline one important sentence ○ Students can annotate (validations, questions, reminds me of) ○ Surviving Winter ▪ This brief article gives a few options for animal survival in winter ○ What Are Living Things? (video 3:13) ▪ This resource is located in "Gale Kids InfoBits" in ClassLink ▪ This video explains some of the traits of certain organisms and how it affects their survival. ○ Habitat Earth HD (24 min video from California Academy of Sciences – could be used as a culminating video)
ELABORATE • Apply to new contexts • Make connections • Models • Engineer • Build investigation	Students develop a Thinking Map (Tree Map) to organize their evidence In groups of no more than 4, create a model such as a poster, diorama, PowerPoint slides, etc.) Students share out models with table groups. Students then will revise their own models based on new learning from their peers. • In groups of no more than 4, students will choose a picture from the tablecloth activity. Each group will create a shared model (a poster, diorama, etc.) illustrating how environments affect living organisms and how traits help them survive in different environments. • Students will make a claim of what they believe to be true in the picture. Then, they will add evidence to support their claim. (i.e. describe the habitat, animals, plants, and explain the traits that help them survive in their environment). ○ Optional CER sentence frame (can be used as an extension to lead students to

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	wonder what would happen to living organisms if there was a major environmental change.
EVALUATE • Notebooks • Models • Rubrics • Performance Task • Claim, Evidence, Reasoning	Gallery Walk • Display shared models for Gallery Walk. • Students provide feedback on other students' collaborative models using post-its. • Teacher notifies groups when to rotate or sets amount of time for students to leave feedback for their classmates. • After groups have visited all the collaborative models, students go back to their original collaborative model. • Students review and reflect on the feedback provided by their classmates. • Ask students what would they add or change in their model or their CER? • Students revisit their Science Journal and revise their notes, model, etc. in their journal based on new learnings.

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