



### Connecting FOSS to Northern Arizona

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### Overview:

**Pg. 1 Introduction:** Explains the project "Connecting FOSS to Northern Arizona"

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**Contact Sheet:** Important names, numbers, e-mails and web-sites for reference information, guest speakers, and program possibilities

**Possible Field Trips:** Local field trip sites and programs that would be appropriate and place-based

**Book List:** A list of both reference and literature books that might be helpful for use with this kit

**Web Resources:** A list of websites that are informative for both teachers and students

### Investigation 1:

**Pg. 2 Note:** Before investigation, introduce vocabulary, make dictionaries, take a walk to see words in action.

**Pg. 4 Note:** Inv1 Page 4: Sketch rocks you found on school grounds, introduce shading and other art concepts

**Pg. 10 Activity 1:** "Pet Rocks" Start seeing the details of individual rocks.

**Activity 2:** "Rock Singers" Have students write a "rock" song about their favorite rock Discuss the characteristics of rocks.

**Activity 3:** "What minerals lie in the sediments of Arizona"

**Note:** Field Trip: Museum of N AZ (see contact sheet): Pottery Making, Rock Art, Prehistoric Technologies.

**Note:** Field Trip: Sunset Crater (Can be done through RCEE 520-779-1745)

**Note:** Inv1 Page 10: RCEE 520-779-1745 Classroom Program: "Rock Talk" 1 hour

**Pg. 18 Activity 4:** "Shapes and Textures" Learn about the different shapes and textures rocks can have.



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- Pg. 18 Note:** Field Trip to Elden Pueblo Project (see Field Trip List)  
**Note:** RCEE 520-779-1745 Classroom programs: "Sifting Sands" & "Millenium March"  
**Note:** Contact USGS, Sue Priest, Geologist 520-556-7148, excellent speaker, great with kids!
- Pg. 20 Note:** Have a class rock collection for the duration of the unit
- Pg. 21 Note:** RCEE 520-779-1745 Field Trip: "Downtown Flagstaff Geology"
- Pg. 21 Activity 5:** "Mineral Mosaics" Make a mosaic that represents an aggregate rock
- Pg. 26 Activity 6:** "Out of the Rock" Watch a video on geology. How does the video relate to us?  
**Note:** RCEE 520-779-1745 Classroom program: "Mystery of Crystal"
- Pg. 26 Note:** Field Trip: Grand Canyon, to look at layers and rock formations  
**Note:** RCEE 520-779-1745 Classroom programs: "Intro to Grand Canyon" & "Grand Canyon"  
**Note:** Read "Down to Earth" p. 43 (see Book List) Cycle of rocks- excellent illustrations  
**Note:** Activities in "Earth Science for Every Kid" (see Book List)
- Pg. 28 Activity 7:** "Gem Trails" Go on a Gem Trail and look for minerals  
**Note:** Design and make postcards with facts/ drawings of minerals, Give postcards away
- Pg. 30 Note:** Make rock candy (sugar solution crystals), rock cookies (coco Puffs and marshmallows)

### Investigation 2:

- Pg. 4 Note:** Field Trip: To Hidden Valley Stone Yard (see Field Trip List)
- Pg. 10 Activity 8:** "Roadside Geology" Go on a driving geology tour of Arizona  
**Activity 9:** "What Comes From Rocks?"  
 Determine what is made from a mineral. Have the students create a collage Have a scavenger hunt. Get the students to start asking and exploring their own questions



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#### Investigation 2 cont'd:

- Pg. 10 Note:** RCEE 520-779-1745 Classroom program: "Exploring Caves"  
**Note:** Borrow kits from RCEE: Earth science mineral sets, Mystery mineral kit, Geology kit-Old Caves Cr

#### Investigation 3:

- Pg. 2 Activity 10:** "The Rock Cycle Story" Find rocks in the schoolyard to compare to a rock collection. Create a storybook. Discuss the rock cycle  
**Note:** Read "Carla Calcite" Ranger Rick (see Book List) Make individual accordion books
- Pg. 6 Note:** Get mineral maps from USGS 520-556-7148. Students can look for minerals on field trips
- Pg. 8 Activity 11:** "Roxaboxen" Read a book then do a musical activity
- Pg. 10 Note:** RCEE 520-799-1745 Field Trips: Old Caves Crater-Geology, Oak Creek Canyon
- Pg. 20 Note:** RCEE 520-779-1745 Field Trip: Old Caves Crater-Geology
- Pg. 24 Activity 12:** "Stone Dwellings" Wupatki (fieldtrip)- Learn about limestone, fossils and dwellings. A Social Studies extension.  
**Note:** RCEE 520-779-1745 Field Trip: Ice House

#### Investigation 4:

- Pg. 2 Activity 13:** "Rock Museum" Students orally share their knowledge / facts on a mineral or rock, as classes tour their projects. It resembles a Science Fair exhibit. Great for self-esteem.  
**Note:** Use a Geiger counter to see how much radiation comes off objects: NAU Physics (see contact)
- Pg. 4 Note:** Read: "Sylvester and the Magic Pebble" (see Book List) Do drama in small groups to the story.  
**Note:** Inv4 Page 4: Read "Everybody Needs a Rock" (see Book List) Do creative writing.



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Investigation 4 cont'd:

**Pg. 6 Note: Inv4** Page 6: RCEE 520-779-1745  
Programs: "Flagstaff Flows, Faults, and Floods" &  
"Erupting Earth"

**Note: Inv4** Page 6: RCEE 520-779-1745 Field  
Trips: Sunset Crater, Downtown Flagstaff  
Geology

**Pg. 20 Note: Inv4** Page 20: Play rock game Mancala. Use  
as a center in the classroom.