Cave Formations

Grade Level: 3-5

I. Learning Objectives/Skills:

A. Learning Objectives: Students will learn about...
   a. Bring awareness to students about the how caves form in limestone
   b. The different types of caves in Northwest Arkansas
   c. The geology and Chemistry in the formation of caves
   d. Replicate the development of stalactite and stalagmite in caves

B. Learning Skills: Students will be able to...
   a. Extend their knowledge, gain more knowledge, and apply what they learned.
   b. Use their knowledge to answer the Who, What, How, any Why questions.
   c. Perform an experiment.
   d. Work and collaborate with their peers and make observation.

II. Materials Needed:

2 Glass Jars
2 1ft. pieces of cotton string
2 Washers
2 Plates
1 Water
1 bag Epson Salts
III. Procedures:

A. **Introduction/Motivation:** Students will view a short video about cave formations.

B. **Exploration:** Students in groups will discuss their prior knowledge of Caves and what they may have seen in the video.

C. **Cooperative Involvement:** Students will visit War Eagle Cave to learn about cave formations, they will then in groups grow their own stalactites and stalagmites.

D. **Closure:** The teacher will facilitate a discussion about the different cave formations seen in the video and the cave and the results of their experiment.

IV. Standards:

    NS- 1.3.4 Communicate the results of scientific investigations. (E.g. Age appropriate graphs, charts, and writings).

    1.3.7 Make predictions and explain based on prior knowledge.

    1.3.8 Use simple equipment, age appropriate tools, technology for scientific investigations.

    1.3.9 Apply lab safety rules as they relate to specific science lab activities.

    ESS-8.3.1 Distinguish among Earth’s materials (E.g. rocks, minerals)

    8.3.5 Identify various uses for rocks and minerals.

    PS- Compare and contrast objects based on two or more properties.

V. Evaluation:
Students will have a quiz over content at the end of the activity.

Students will perform a scavenger hunt activity while visiting the cave for a grade.

Students will also write a report of their experience.