



«[Science Lesson Plans](#)

## GPS -Groups Promoting Study

Published on August 5, 2009 by Frances Reilly

### Description

In cooperative groups of 4, students will review the concepts/vocabulary/concepts taught in the CAPTIVATING CAVES lessons, regarding caves and animal adaptations, while using the GPS devise. The waypoints will be located within the Boone playground area. Students will work together to determine the numerical value of the correct answer, and will travel to the various waypoints by using the GPS system. The students will also be reviewing land tography concepts which would have been studied in past grade levels, as well as reviewed in Social Studies.

### Grade Level

4/5th grade

### Lesson Objective

The student will complete a final review and apply knowledge of key vocaulary terms/concepts of animal adaptationa and cave formations in a fun manner. The student will apply fluency of basic number relationships (+ - x /), in order to derive the correct answer of each question, which will give them their next waypoint. Students will work in cooperative groups while successfully using the GPS devise to answer 6 review questions. [Student pages:](#)

### GLEs

Science: 3.1D,d 4.1A.a,b 5.1A.b 5.2a,b,d

Math MA1 1.6

### Depth of Knowledge

Level 2

### Instructional Strategies

Direct whole group instruction (use of ELMO) to introduce use of GPS devise. Students will be shown how to read and work the GPS device. Students will also be given whole group instruction and practice of how to use the math code key to determine number value of a chosen answer. Teacher will repeat practice before taking class to a predetermined place by use of the GPS.

Students will work in cooperative groups of 4 to determine science answers and to calculate #code, which determines their next waypoint. Students will record information /calcuations on log provided by the teacher. Students will also be given a cooperative group evaluation rubric, which they are to complete at the end of day 2.

### Time Needed

3 days

### Materials

GPS Devise-must be borrowed from C. Elementary and Red Bridge shool ICE5 teachers.

Clip boards, recording waypoint sheet, pencil, alphabet-# code, calculator; science notebook, cooperative group checklist.

### Academic Vocabulary

GPS system, cave formation, animal adaptations

### Lesson Plan

Day 1 (45 minutes)

Teacher will introduce the compoments of the GPD device with the use of the ELMO. Teacher will model how it is used, showing the students the menu and how to understand the information that is seen when navigating with the buttons.

Students will be instructed on how to use an answer to a science question, by applying the number code, and how to determine the next waypoint specified. Students will then work within their cooperative group to complete practice answer and numerical code , which they will see in the next lesson, it the waypoint for their next science review question.

Day 2 (1 hour)

Students will review expectations of cooperative group behaviors, roles, responsibilities of the GPS lesson before they go to the playground .

Each student will need clipboard, recording sheet, pencil, calculator (for checking only!) and GPS. The teacher will tell each group at what mark they should begin. Students will be monitored as they make their way around the playground. Students are NOT to share any information with other groups.

Return to classroom, and complete a meaningful LOL, as well as a cooperative group evaluation.

Day 3 (30- 40 min)

Students will share LOL, and discuss reactions to working with the GPS system. Students will review science waypoint questions -answers. Students should be well prepared for the post test of "Captivating Caves".

### Resources

Elmo-smartboard. 6 GPS devises. Recording sheets, clipboard, Questions in baggies located at waypoints on the playground. Additional adult to help with supervision outside.

### Literature links

Limestone Cave by Wendy Davis

Animals with No Eyes, Cave Adaptation by Kelly Regan Barnhill

### Text book link(s)

SF Science Gr.5 pgs. 262-caves ; pgs. 170-173-adapations

**Key concepts:** [Review of terms/vocabulary/concepts covered in the Captivating Caves lessons \(see glossary\)](#)

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