

HIGHLANDS CENTER FOR NATURAL HISTORY
ROCK DETECTIVES 3RD GRADE FIELD TRIP PROGRAM

OBJECTIVES

- Provide a firsthand opportunity for students to experience how science works in the field
- Give students exposure to the stories that rocks can tell - geology
- Create an inspiring and fun-filled morning that will leave a long-lasting impression and perhaps a hunger for more knowledge of earth sciences

STUDENTS WILL:

- Learn that rocks and landscapes are always changing even though we cannot always perceive it
- Learn/review the three major classifications of rock types: igneous, sedimentary and metamorphic
- Learn to use 'scientific' instruments – magnetic compass and inclinometer
- Find specific types of rock beds and measure and record their compass orientation and degrees of tilt
- Formulate and ask questions about the meaning of the measurements they've taken
- Try to suggest reasons (hypotheses) to explain the evidence they have recorded
- Present their findings to fellow “scientists” for discussion and peer review in a symposium
- Recognize that geologic forces create the canvas on which ecosystems are painted

The 4 hour program begins at 9:30am and concludes at 1:30pm. The progression of the day is:

1. Introductory Puppet Show in the amphitheater when the mystery of the rocks is introduced
2. Exploration and taking measurements in the field (gathering clues)
3. Lunch
4. Rock Identification Game and comparing measurements taken in morning (putting the clues together)
5. Symposium in the amphitheater when all students compare clues together and collectively solve the rock mystery