# (GIS) GPS - Units in the Hand

## Summary

After viewing the 4-H slide show presentation about GPS units, students have a unit in their hands to examine, indoors, with the satellites off. Later, they go outside for discovery.

#### Time Frame

3 class periods of 60 minutes each

#### Group Size

**Small Groups** 

### Life Skills

Thinking & Reasoning

#### Materials

GPS Units (1 per 2 or 3 students) GPS manuals (1 per 2 or 3 students)

## **Background for Teachers**

Basic GPS skills, read the manual yourself.

# Student Prior Knowledge

These lessons recommended before this one.

Trilateration

Point of View

Compare & Contrast - Then & Now North, South, East, West

# Intended Learning Outcomes

Students will experience several preparatory steps to learn use of the GPS units to mark points and track their movements.

## **Instructional Procedures**

#### Part 1

Whole group discussion about expense and proper use of GPS units.

GPS always around a partner's neck

Never swing the GPS by the cord

Put students in groups of 2 or 3

Assign each group a GPS unit. Keep track of which group has which GPS unit.

Turn on GPS units

Turn off satellites

Flip through the screens to preview what the students will be looking at when they go outside.

This should somewhat resemble what you saw on the 4H slide show.

Take students outside. Allow them to experiment with the units. Some of the things that they might discover are the mileage gauge, speed gauge, the map, and the compass.

Bring students back inside. Assign a GPS manual to each group. Each group should scan

through the manuals looking for items that appeal to them.

Each group should report back to the whole group something that they have discovered, using page numbers to reference for whole group shared reading.

#### Part 2

To Prepare for the next lesson -

Hide 6 golf balls or a couple of bags of candy somewhere on your playground. You may either have 15 GPSrs around your neck and mark a waypoint for the location of the candy on each one or try and have the kids do it before the search. I chose a friend to help me (Pat Lambrose) and we each had 15 GPSrs around our necks!

Go over safety rules for the GPS units again.

Have students turn off the satellites. Explain and demonstrate the "Go to" feature. Release the students.

#### Part 3

A great way for your students to reinforce their own learning is to teach another class of kids to use the GPSrs.

Invite another class to come on a treasure hunt. Have them team up with the kids in your class. Have your students hide several golf balls. Your students can show the other kids how to "Go To" and find each tennis ball.

The kids can switch off hiding and finding the balls.

Bibliography

4-H of Utah

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