

Dear Family,

Our class is beginning a new mathematics unit called *Sunken Ships and Grid Patterns*. This unit introduces an important part of geometry: naming and locating points on a grid. Finding and plotting points and labeling them with their location or coordinates are things students will do in math from now through high school.

In this unit, we introduce the idea of plotting a point through the fanciful context of Grid City. Students will move a “taxicab” through the city to think about locations and distances on a grid. To put together their knowledge of coordinates and distances, students will then play a game called Sunken Ships, where the goal is to find each other’s ships quickly. Students will also create coordinate mysteries for one another. These are connect-the-dot pictures, where each dot is specified by grid points or coordinates.

In the second half of this unit, students use the computer language *Geo-Logo* to explore the characteristics of rectangles. They investigate symmetry by making symmetrical “bulletin boards” of rectangles. As a final project, students create designs that look complicated but are easy to make on the computer using *Geo-Logo*. We hope you will enjoy seeing these beautiful and mathematically interesting designs.

During this unit, you can help by:

- Offering to solve your child’s coordinate mystery after he or she creates it. If you are unsure of how to read grid coordinates, your child can help you.
- Playing Sunken Ships with your child when he or she brings it home. Your child can teach you the rules—and maybe even some good strategies!
- Keep your eyes open for rectangles in the world around you—they’re easy to spot. Work with your child to find particularly large or small (smaller than an inch on a side) rectangles, rectangles that are also squares (all sides are equal), and rectangles that are much taller than most fourth graders.

Thank you for your continuing interest in your child’s mathematics work.

Sincerely,