Introduction

The main teaching strategy for this multiplication lesson plan is to have students understand the concept of multiplication instead of just memorizing. Certainly there needs to be some drill and practice and memorizing of the multiplication tables, however, multiplication can be taught in a variety of ways such as interactive group exercises, visiting educational websites, participating on discussion boards, creating an electronic journal, using email, using developmental computer software, and playing a multiplication game with the entire class or in groups. The students must have an understanding of the subject through **higher order thinking skills** and possibly **hands on experience**. Students do not learn much just sitting in classes listening to teachers, memorizing pre-packaged assignments, and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences, and apply it to their daily lives. They must make what they learn part of themselves. This is the concept of **authentic learning**.

ISTE and NJCCCS Standards

In addition, the theme of this lesson plan is not only multiplication, but connecting it to the **ocean**, which the class is currently learning in science. Therefore, even within the mathematics area the corporation of this theme is interwoven into the lessons. For example, different types of fish are used in the word problems and the ocean is the basis for the interactive computer applications as well as an electronic journal that the students need to write in everyday. Through the above teaching methods, this lesson is up to par with the **International Society for Technology in Education standards** and the **New Jersey Core Curriculum Content Standards**. "The primary goal of the ISTE and NETS in Pre K–12 education is to develop national standards for educational uses of technology that facilitate school improvement in the United States. The NETS Project will work to define standards for students, integrating curriculum technology, technology support, and standards for student assessment and evaluation of technology use" (http://cnets.iste.org).

This lesson is an authentic learning experience since it involves real-life experiences and questions. Authentic instruction is one of the visions of the New Jersey Core Curriculum Content Standards for Mathematics and the National Council of Teachers of Mathematics. Other goals of the NJCCCS and NCTM that are incorporated into this multiplication lesson are:

1) All students' mathematical learning will embody the concepts that engagement in mathematics is essential and that decision making, risk taking, cooperative work, perseverance, self assessment, and self confidence are the keys to success.