Unit 3  Week 4	***Small Groups: Ocean, Sky or Shore*** Medium Support	**Math** **SG2**	**Standards:** MELDS.M.MP.PS.4 MELDS.M.MD.PS.1 MELDS.M.MD.PS.2

Guiding Math Ideas:

- Growing in classification skills
- Problem-Solving- Data collection and beginning analysis

Math Concepts from Unit Learning Progressions:

- Gathering information (data) to help solve problems
- Growing use of discrete attributes for classification sorting strategies to organize collection.

Materials:

- *Down East in the Ocean* by Peter Roop
- Green, light brown, and light blue paper
- 1" cubes
- placemats
- 3 activity hoops

Math Vocabulary:

- shore- the land that is right next to the ocean
- toss-a gentle throw

Preparation:

Copyright laws allow for copying up to 10% of a book's pages. Copy *Down East in the Ocean's* cover and select 3 pages that give examples of animals that live primarily (or solely) in the ocean, on the shore or in the sky. Write *ocean*, *shore* and *sky* on the appropriate colored paper.

Gather children on the floor and place a pile of blocks in front of each child [use placemats to define space if needed].

Procedure:

Read the book with the children. Chant along with the children in call and response fashion *Swim* (teacher) -- *I Swim* (children) while reading the book (this is also done in SWPLM).

> *We have learned about animals' **habitats,** like Rabbits in the story Rabbits and Raindrops that we read last week. Habitats are the places where animals can live. Some of these animals in the book live mostly in the ocean, some of them live mostly in the sky and some of them live mostly on the **shore**. The **shore** is a special place- land that is next to the ocean. Sometimes it is a sandy beach*

and sometimes it is a rocky or a grassy place.I have some pictures from our book of the ocean, the shore and the sky.

Here are 3 hoops. I am going to put this colored paper here to pretend it is the ocean. I wrote the word "ocean" on it. [Place appropriate color in each hoop] As an added "clue" put one of the pictures you have copied into the hoop as well that shows an animal in its habitat.

I'm going to give everyone some blocks- I am going to ***toss****, that means a gentle throw, a block into the hoop* [Demonstrate]. *When we turn to a page, if you think an animal lives mostly in the ocean, toss a block into the ocean circle. If you think it lives mostly in the sky, toss a block into the sky circle. If you think it lives mostly on the shore, toss a block into the shore circle.*

We will talk about the animals and discuss things before you decide.

As you work through the animals, some children may notice, or already know, that some animals live in both places. If they do not notice this, point it out to them.
The cover of the book gives a beautiful picture of seals on the shore in contrast to the inside picture of the seals.

Hmmm. Here are some seals, I see that they are on the shore in this picture and yet they are also swimming in the ocean in this picture- Turn to picture.

Problem solve with the children about what to do with animals that live in two places.

There are other things to discuss as well. Do eagles live in the sky, or on the land in their nests? Put a block in both hoops; Decide where they live most of the time; Figure out where they sleep. Suggest overlapping the hoops and making an area for animals that live both in the ocean and on the shore. Place the book cover picture that shows seals on the shore beside the ocean in the overlapping area. Count blocks, and compare numbers.

Strategies to Provoke Math Thinking:

- A simple Venn diagram- While classifying and sorting animals, a problem arose- what to do with animals that live in both places? The Venn diagram was introduced- an important tool used by mathematicians to classify and organize materials. This activity encourages higher-order thinking skills, as children apply their knowledge of animals to a physical model/representation.

Documentation:
See Small Group 1 for more ideas to document learning.

Provocation:
Think of additional ways that you can create Venn diagrams using People Math in large group time: A
group of children who have on red; a group of children who have on blue; a group of children who

have on both red and blue.