



The Ocean
A Unit for Fourth Grade
by Katy Hobson
Educ327

Table of Contents

Introduction.....	3-4
Pre-assessment.....	5
Post-assessment.....	6
Assessment answer key.....	7
Unit web.....	8

Lesson plans

Writing: Ocean narratives.....	9-10
Art: Creating the animals.....	11-12
Storytelling: Presenting the narratives.....	13-14
Social Studies: Ocean directions.....	15-16
Math: Rounding.....	17-18
Reading: Ocean outlining.....	19-20
Music: Ocean sounds.....	21-22
Drama: Ocean skits.....	23-24
Science: Ocean erosion.....	25-26
Gross PE: Going to the pool.....	27-28
Cooking and Fine PE.....	29

Technology/Field trip.....	30
Trade books.....	31
Parent letter.....	32
Interactive bulletin board	

Introduction to the Ocean Unit

Theme: the ocean **Grade level:** fourth

Rationale: Students in fourth grade need to understand the various effects of the ocean as well as defining characteristics of the ocean in order to develop a deeper appreciation of the ocean's importance and how it influences the rest of the earth.

Academic standards:

- Science 4.3.3 – Identify salt as the major difference between fresh and ocean waters.
- Science 4.3.5 – Describe how waves, wind, water, and glacial ice shape and reshape Earth's land surface by the erosion of rock and soil in some areas and depositing them in other areas.
- Science 4.6.1 – Demonstrate that in an object consisting of many parts, the parts usually influence or interact with one another.
- ELA 4.5.1 – Write narratives that:
 - Include ideas, observations, or memories of an event or experience.
 - Provide a context to allow the reader to imagine the world of the event or experience.
 - Use concrete sensory details.
- ELA 4.5.5 – Use varied word choices to make writing interesting.
- Visual Arts 4.8.2 – Create artwork incorporating concepts, subject matter, or the sign systems of other disciplines that communicates in-depth knowledge gained through integrated study.
- ELA 4.7.9 – Engage the audience with appropriate words, facial expressions, and gestures.
- ELA 4.7.17 – Make descriptive presentations that use concrete sensory details to set forth and support unified impressions of people, places, things, or experiences.
- Social Studies 4.3.2 – Estimate distances between two places on a map, using a scale of miles, and use cardinal and intermediate directions when referring to relative location.
- Music 4.3.6 – Use voices and instruments to create appropriate sound effects or accompaniments to a poem or short story.

- ELA 4.2.1 – Use the organization of informational text to strengthen comprehension.
- Math 4.1.3 – Round whole numbers up to 10,000 to the nearest ten, hundred, and thousand.

Goals:

- Students will understand how the ocean affects the earth.
- Students will understand how the various components within the ocean interact, affecting life within the community.
- Students will learn how to write engaging narratives using sensory details.
- Students will apply their knowledge of the ocean to create a replica of an ocean animal.
- Students will understand what makes an engaging, effective presentation.
- Students will learn to estimate distances and use cardinal directions on a map.
- Students will understand how to outline information from a nonfiction text.
- Students will learn how to round numbers up to 10,000.

Objectives:

- Describe how erosion shapes the earth
- Explain how a particular animal interacts with other parts of the ocean.
- Compare ocean water and fresh water.
- Write a narrative about a day in the life of an ocean animal.
- Create a model of that animal for the ocean exhibit.
- Students will present their narrative at the ocean exhibit.
- Students will estimate distances from different locations to the ocean.
- Students will describe the direction of the ocean from different locations.
- Students will outline information from a trade book and their textbook.
- Students will round numbers to 10,000.

Ocean Pre-Assessment

Name: _____

Directions: Read each statement. Decide if the statement is true or false. If the statement is true, write T on the line next to the number. If it is false, write F.

1. _____ The ocean contains fresh water.
2. _____ Erosion is the process in which the earth is reshaped by the ocean.
3. _____ As the waves come onto the sand, they move the sand and deposit it somewhere else.
4. _____ Within the ocean, none of the parts interact with or influence each other.
5. _____ On a map, a scale can be used to help estimate distances between two locations.
6. _____ There are four cardinal directions: north, south, east, and west.
7. _____ When you want to round numbers over 10,000, you look start by looking at the number in the ones place.
8. _____ Every detail that you read should be put into an outline.
9. _____ Sensory details are details in that help the reader to imagine a situation that she or he is reading about.
10. _____ In good presentations, the reader speaks in the same tone the whole time.

What information would you like to learn about the ocean throughout the unit?

Ocean Post-Assessment

Name: _____

Directions: Read each statement. Decide if the statement is true or false. If the statement is true, write T on the line next to the number. If it is false, write F.

1. _____ The ocean contains fresh water.
2. _____ Erosion is the process in which the earth is reshaped by the ocean.
3. _____ As the waves come onto the sand, they move the sand and deposit it somewhere else.
4. _____ Within the ocean, none of the parts interact with or influence each other.
5. _____ On a map, a scale can be used to help estimate distances between two locations.
6. _____ There are four cardinal directions: north, south, east, and west.
7. _____ When you want to round numbers over 10,000, you look start by looking at the number in the ones place.
8. _____ Every detail that you read should be put into an outline.
9. _____ Sensory details are details in that help the reader to imagine a situation that she or he is reading about.
10. _____ In good presentations, the reader speaks in the same tone the whole time.

What was your favorite part of the unit and why?

Assessment Answer Key

1. F

2. T

3. T

4. F

5. T

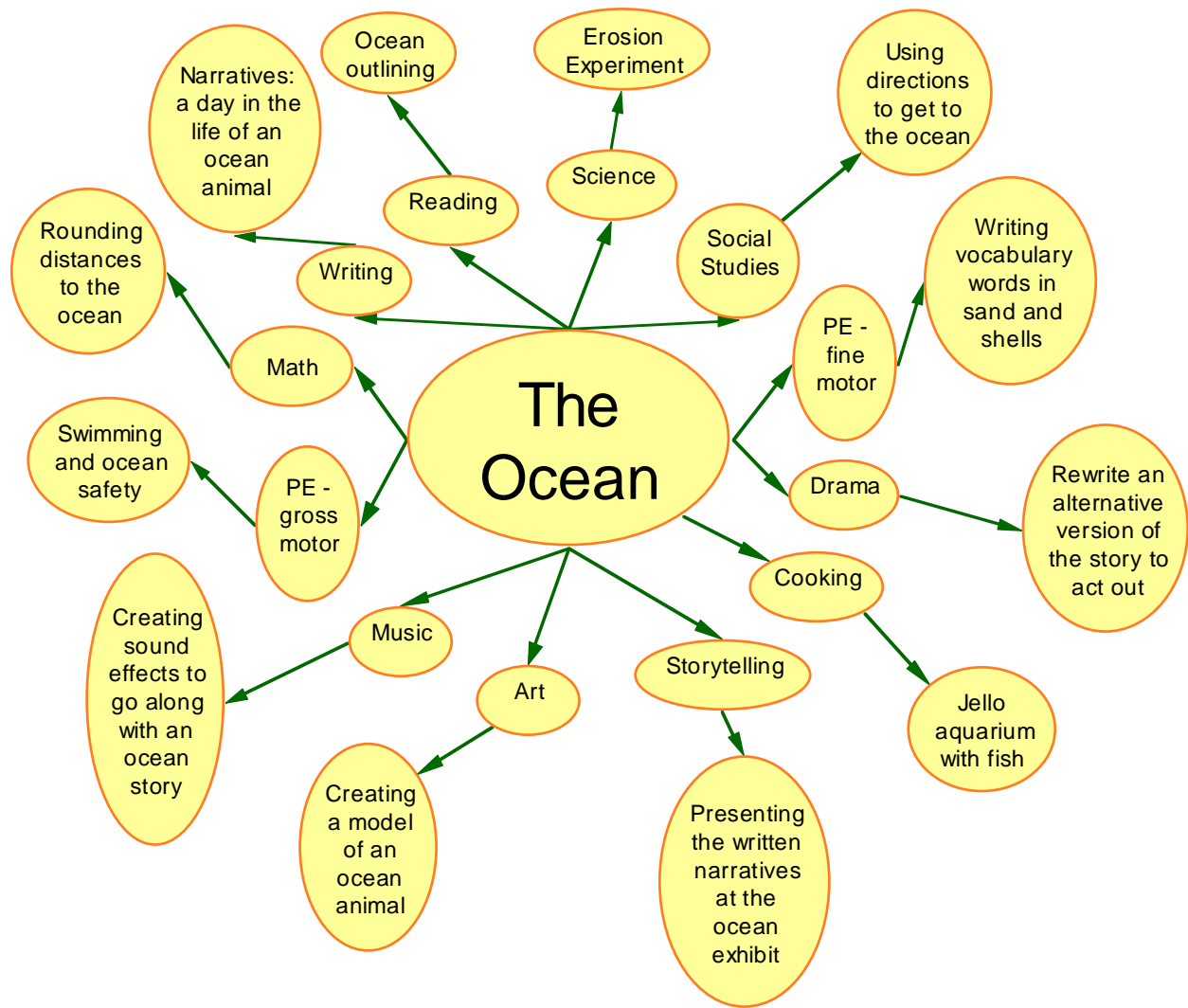
6. T

7. F

8. F

9. T

10. F



Unit lesson #1 – Ocean Narratives

Length: 45-50 minutes for five days

Academic Standard(s):

ELA 4.5.1 - Write narratives that:

- include ideas, observations, or memories of an event or experience.
- provide a context to allow the reader to imagine the world of the event or experience.
- use concrete sensory details.

ELA 4.5.5 - Use varied word choices to make writing interesting.

Science 4.6.1 - Demonstrate that in an object consisting of many parts, the parts usually influence or interact with one another.

Performance Objectives:

In a two-page written narrative, the students will use at least ten concrete sensory details that allow the reader to image the experience.

While editing their narrative, the students will choose five words to replace with a more interesting word choice.

In a written narrative, the student will describe three ways in which their ocean animal influences or interacts with other parts of the ocean.

Assessment:

The narrative will be graded based on the attached rubric. The rough drafts will be turned in to show the words that the students chose to replace.

Advanced Preparation:

Create rubric

Create story element cards, cut apart enough for each student

List of ocean animals

Copies – rubrics, story maps, sensory charts, story element cards

Story map: http://www.greatsource.com/iwrite/dot/story_map.dot

Sensory chart: http://www.greatsource.com/iwrite/dot/sensory_chart.dot

Overhead projector, markers, transparencies

Procedure:

Introduction/Motivation: As a class, brainstorm a list of ocean animals and have students pick one that they are really interested in. If enough have not been brainstormed, fill some in from the list. Then explain the ocean unit: creating an ocean exhibit, making a model of an ocean animal, and even taking a trip to the pool. Today we are going to begin with writing a narrative about the ocean animal.

Step-by-Step Plan

1. “What is a narrative?” (*Level I – Knowledge*) “How would you compare and contrast a narrative and an expository piece?” (*Level II – Comprehension*)
2. Pass out story element matching cards for the students to match at their desks. (*Gardner – Bodily/Kinesthetic*) Review them.
3. “What makes a good narrative?” Discuss ideas. (*Gardner – Verbal/Linguistic*) Pass out and go over the rubric. “Suppose you could be your ocean animal; what would you do for a day?” (*Level V – Synthesis*) The ultimate goal is to create a narrative to tell about the ocean animal when the exhibit is complete.
4. Pass out the sensory chart and story map and explain their role in the prewriting process. “Why do you think sensory details are important in a narrative?” (*Level IV – Analysis*)
5. Have the students get into small groups and begin discussing ideas and working on filling in the charts. (*Gardner – Interpersonal*) They will need at least two details for each sense.
6. Walk around the room and monitor progress. If students finish their charts with success, they may begin working on their rough drafts.

Days 2 and 3 – Minilesson on first point of view, students work on rough drafts, conferencing with teacher

Day 4 – Minilesson on varied word choice, peer editing, and teacher conferencing

Day 5 – Complete final copies in the computer lab, turn in

Closure: At the end of each writer’s workshop, allow students to share their ideas and progress with the class. They might talk about the conflict and character in their story or read their rough draft, receiving input from both the teacher and their peers. Tell students to think about what their animals would look like and how they would create a model of it, as they think about what they will be doing next.

Adaptations/Enrichment:

I will use the classroom microphone for my student with a hearing impairment.

A student with dyslexia or other writing difficulties may type in the information into the charts instead of writing in the information.

Self-Reflection:

Do the students understand how to write the narrative?

Were they able to fill in their story maps and sensory charts?

Are there any aspects that need to be covered again before students begin working on their rough drafts?

Unit Lesson #2 – Creating the animals

Length: 45 minutes on day one and day three, 30 on day two

Academic Standard(s):

Visual Arts 4.8.2 – Create artwork incorporating concepts, subject matter, or the sign systems of other disciplines that communicates in-depth knowledge gained through integrated study.

Science 4.6.1 – Demonstrate that in an object consisting of many parts, the parts usually influence or interact with one another.

Performance Objectives:

While studying the ocean, the students will complete a model of their chosen ocean animal to display in the ocean exhibit.

When researching their animal, the students will write down three ways in which the animal interacts with or influences the ocean and animals around it.

Assessment:

Once the ocean exhibit is set up, walk around and look at each animal to see if it has been completed. Also, students will jot down their three ideas of influence/interaction to turn in at the end of computer lab time to be checked.

Advanced Preparation:

Get the following materials: Internet access to get pictures of the students' animals, opaque projector, pencils, scissors, bulletin board paper to trace the animal on, paints, paint brushes, glue, and newspapers; set up computer lab time

For day three – blue and green bulletin board paper and plastic wrap, string, paper clips, and shells

Procedure:

Introduction/Motivation: “As we finished working on our narratives, I asked you to think about how your animal might look as a model.” Ask students, “How would you describe the ocean animal that you have chosen?” (*Level I – Knowledge*) Allow a few students to answer. Then explain the next step in our ocean exhibit: creating the ocean animals to put in our exhibit. Now we'll be going to the computer lab and printing off a picture of the animals to enlarge and trace. Ask, “How would you select the best picture to use?” (*Level VI – Evaluation*)

Step-by-Step Plan

1. Students will go to the computer lab to print off a picture of their ocean animal. Once each student has a picture, they should find three ways in which their animal influences or interacts with the rest of the ocean and ocean life to turn in for me to check. (*Gardner – Verbal/Linguistic*)
2. Back in the classroom, each student will have a turn to go to the back of the room and work with the opaque projector. (*Gardner – Bodily/Kinesthetic*) They will put a sheet of

paper on the wall, slide their picture in the projector, and trace the animal twice onto the sheet of paper. As the students continue work on their narratives, call them back one at a time to complete this.

3. Once all students have traced their animals, they will need to paint both sides at the designated table. (*Gardner's – Visual/Spatial*)
4. Leave them out to dry for the night. The next day, the students will cut out their animals and glue most of them together, except for a space at the end. Students will then stuff newspapers into the animals and glue the two sides together completely. Set them out for the glue to dry.

Closure: Day 3 – Construct a classroom model of the ocean. (*Level III – Application, Gardner – Naturalist*) “Can you list parts of the ocean to include in our exhibit?” (*Level IV – Analysis*) Cover a corner of the room with bulletin board paper, hanging thin strips of plastic wrap from the ceiling. Hang the students’ animals from the ceiling using string and paper clips. Shells can also be interspersed throughout the exhibit. After the exhibit is complete, look at each animal to assess completion. If not complete, the student will need to finish it the following day. As the animal creation comes to an end, tell the students that they will now be combining their narratives and animals in the next lesson to put the exhibit all together.

Adaptations/Enrichment:

Use a microphone for the student with a hearing impairment.

Allow a student with an orthopedic impairment who cannot paint or cut well work with a partner for the project.

A student with dyslexia or other writing difficulties may type the influences/interactions of their animal instead of writing them.

Self-Reflection:

Were the students able to construct a model of their ocean animal?

Were they able to find three ways their animals interact with the rest of the ocean?

Were they engaged without behavior problems?

Unit lesson #3 – Storytelling

Length: 35-40 minutes on day one, 40-45 on day two, and 45 on day three

Academic Standard(s):

ELA 4.7.9 Engage the audience with appropriate words, facial expressions, and gestures.

ELA 4.7.17 Make descriptive presentations that use concrete sensory details to set forth and support unified impressions of people, places, things, or experiences.

Performance Objectives:

When presenting the narratives, the students will use appropriate words 100% of the time.

When presenting the narratives, the students will use appropriate facial expressions 100% of the time.

When presenting the narratives, the students will use appropriate gestures 100% of the time.

When presenting the narratives, the students will use at least 10 concrete sensory details to make an impression about their ocean animals.

Assessment:

The students will be assessed according to the attached rubric.

Advanced Preparation:

Copies of the rubric and self-evaluation

Procedure:

Introduction/Motivation: “Now that we have been working on our narratives and our models, we need to figure out how we are going to present them!” Borrow one of the student’s completed narratives. Read it straight from the paper completely monotonously, with no facial expression, and no gestures. Ask students to evaluate the performance. Then ask, “What makes a good storyteller?” (*Level I – Knowledge*) “What would happen if you read your narrative at our exhibit like I just did?” (*Level V – Synthesis*)

Step-by-Step Plan

1. Read the narrative with more animation and expression. Ask students what made that reading better than the first one.
2. Pass out the rubric to each student. Divide students into groups of four to practice reading their narratives with each other. (*Gardner’s – Interpersonal, Verbal/Linguistic*) Allow them to provide each other with positive feedback and constructive criticism. Walk around and listen to different groups. After about 20 minutes, bring the class back together and talk about what went well and what didn’t.
3. Day 2 – Put the students in different groups to practice their narratives again. Emphasize that the more they practice, the more prepared they will be to be great storytellers. After

15-20 minutes with one group, mix the groups up again. After practicing in those groups, bring the class back together. Pass out the rubric and review what is expected of them as they tell their story at the ocean exhibit. Also set up the order in which the students present.

4. Day 3 – Students will present their narratives to other class and to parents who come in to see the exhibit. (*Gardner's – Interpersonal, Verbal/Linguistic*) They will sit off to the side in order that they present. They will go up one at a time to their animal (*Gardner's – Bodily/Kinesthetic*) and present their narrative. Assess them using the rubric.

Closure: Pass out a self-evaluation to each student to fill out once the exhibit is complete. (*Gardner's – Intrapersonal, Level IV – Analysis and Level VI – Evaluation*) “Now, we have talked a lot about the ocean. Imagine that we actually wanted to get there, how would we figure out how many miles we would have to travel or in which direction we would travel? We’ll be learning about that next!”

Adaptations/Enrichment:

Each student will present using the microphone for the student with a hearing impairment.

A student who would have difficulty maneuvering to their animal would be able to present from where they are seated.

A student with a communication disorder would have a partner to help present his/her narrative.

Self-Reflection:

Did the students understand what it means to be a good storyteller?

Were the able to apply those aspects into their own experiences as they presented the narratives in front of an audience?

Lesson #4: Ocean Directions

Length: 30-35 minutes

Academic Standard(s):

Social Studies 4.3.2 – Estimate distances between two places on a map, using a scale of miles, and use cardinal and intermediate directions when referring to relative location.

Performance Objectives:

When comparing two places on a map, the students will estimate the difference between them within 50 miles with 100% accuracy.

Given two places on a map, the students will identify the direction they would travel to get from the first to the second location with 100% accuracy.

Assessment:

The students will complete a worksheet to be turned in and graded by the teacher.

Advanced Preparation:

Anticipation guide

Worksheet with map

Procedure:

Introduction/Motivation: “Today, we want to go to the ocean! Unfortunately, I’m not Miss Frizzle so we can’t just jump on the bus and go. Now, if we really wanted to go to the ocean we would have to think about a lot of things! Which direction do we travel? Approximately how many miles would it be?” Pass out the anticipation guide and have students work in group of four to complete it. (*Gardner – Interpersonal*)

Step-by-Step Plan

1. Have students stand up and ask them to face which direction they think is north. (*Gardner – Bodily/Kinesthetic*) Then tell them which way it is. Ask them which way is east, west, and south; point them in the right direction once they have attempted.
2. Pull down the map and point to the compass. Have you seen or used this before? What is it used for? Explain. Teach them “never eat sour worms” to help them remember the directions as they go clockwise around the compass. Have the students turn to their neighbor and create their own saying. (*Level V – Synthesis*)
3. Ask students to name the states to the north, south, east, and west of Indiana. Ask them to name the countries to the north and south and the oceans to the east and west of the United States. As students answer, point out the places on the map, tracing your finger between them so the students can see the direction traveled.
4. Point to Indianapolis and to Fort Wayne. Ask the students what direction they would have to go to get from Indianapolis to Fort Wayne. Then ask the students to brainstorm ways that they could find the distance between the places.
5. Point out the scale on the map. Ask, “What is the function of this scale?” (*Level IV – Analysis*) A scale can be used to estimate differences. Do a few examples, and make sure to include estimating distances to the ocean, such as Indianapolis to the middle of the Atlantic Ocean, etc. Allow the students to come up to the map and estimate the distances.

(*Gardner – Visual/Spatial*) Also ask them to identify what direction they would have to travel to get from the first to the second place.

6. Have students turn to each other and summarize how to estimate distances. (*Gardner – Interpersonal, Level II – Comprehension*) Then pass out the worksheet for them to work on independently. (*Level I – Knowledge*)

Closure: As students finish the worksheets, have them fill out the “after reading” section of the anticipating guide. Collect and grade the worksheets. “Today, we talked about estimating distances on the map, and next we will talk about rounding distances.”

Adaptations/Enrichment:

- Use a microphone for the student with a hearing impairment.
- A student with a visual impairment will sit at the front of the room so the map can be seen easily. Also, use puff paint to raise the lines on the worksheet.
- A student in a wheelchair will point to the different directions instead of standing up and turning toward them.
- A student with a mental disability will be given choices on the worksheet. They will need to circle the direction and the correct estimate instead of having to write in the answers.

Self-Reflection:

Are the students able to name the directions?

Are they able to use the directions to refer to relative locations?

Are they able to accurately estimate the distance between two places?

Were they engaged throughout the lesson?

Did the anticipation guides work well?

Lesson #5: Ocean math – rounding

Length: 35-40 minutes

Academic Standard(s):

Math 4.1.3 – Round whole numbers up to 10,000 to the nearest ten, hundred, and thousand.

Example: Is 7,683 closer to 7,600 or 7,700? Explain your answer.

Performance Objectives:

Given a worksheet, the student will round five numbers with 100% accuracy.

Assessment:

The students will complete a worksheet to be completed and turned in to the teacher. The teacher will grade the worksheet and record scores in the grade book.

Advanced Preparation:

Get base-10 blocks together

Copy the worksheets

Procedure:

Introduction/Motivation: “From here to Fort Wayne is 47 miles; what is that rounded to the nearest ten? Here to Indianapolis is 112 miles; what is that rounded to the nearest hundred? Today, we are going to round bigger numbers to help us get to the oceans that we’ve been talking so much about.” Continue review of rounding to 10s and 100s: Students will get into partners. The oldest partner will come up and get a set of base-10 blocks for the pair to work with. (*Gardner – Interpersonal*) Ask students to show the number 23 with their blocks. Ask them what 23 rounds to. Do three more problems with tens and then three with numbers between 100 and 200. Collect the blocks.

Step-by-Step Plan

1. Now, let’s learn how to round with numbers in the thousands. Write 74 on the board. How do we decide what 74 rounds to? Look at the number in the tens digit.
2. Write 1,405 on the board. How do you think we decide how to round this number? We look at the hundreds digit. Since the four (underline it) is less than five, the number rounds to 1,000 instead of 2,000.
3. How about this number? Write 4,817 on the board. Allow a student to answer, making sure they explain their reasoning. (*Level II – Comprehension*)
4. Now I am going to say a number and give you two choices. I will then repeat the choices and ask you to stand up when I say the one that you think the number rounds to. (*Gardner – Bodily/Kinesthetic*)
5. The first number is 3,793. Does this round to 3,000 or 4,000? Stand up for 3,000. Stand up for 4,000. The answer is 4,000.
6. Let a few students give the number and choices. Ask if there are any questions.
7. Pass out the ocean rounding worksheet for students to complete. (*Level I – Knowledge*) They will be solving the problems (*Gardner – Logical/Mathematical*) and also writing an explanation for their answer. (*Gardner – Verbal/Linguistic*)

Closure: After finishing the worksheets, have the students turn to the partner they worked with in the beginning. Ask them to compare and contrast their answers. (*Level IV – Analysis*) They should discuss reasons that they would use rounding (*Level V – Synthesis*) and also talk about how they could prove their answers after they rounded a number. (*Level VI – Evaluation*) Now that we have rounded the distances to the ocean, I think that we would want to learn more about the ocean before we visited! In our next ocean lesson, we will talk about ways to organize the information we learn.

Adaptations/Enrichment:

Use a microphone for the student with a hearing impairment.

A student who has difficulty with writing can orally discuss their reasoning for their answers instead of writing them down.

A student in a wheelchair, instead of standing up for the right answer, can give thumbs up for the higher number and thumbs down to choose the lower number.

A student with a mental disability will be given five problems instead of ten.

Self-Reflection:

Do the students understand rounding with numbers in the thousands?

Were they able to explain their reasoning?

Were the students able to answer nine out of the ten problems correctly?

Does this need to be reviewed or can we move on tomorrow?

Lesson #6: Ocean Outlining

Length: 55-60 minutes

Academic Standard(s):

ELA 4.2.1 Use the organization of informational text to strengthen comprehension.

Performance Objectives:

Given an informational text, the students will include all of the red headings from the textbook chapter in an outline.

Given an informational text, the students will provide at least two facts from the sections in their outlines.

Assessment:

Since the students are just learning how to outline, the outlines will be handed in and checked without receiving a grade. The teacher will complete a checklist and write comments to the students about strengths and weaknesses of their outlines. The students will also do a self-evaluation based on the checklist.

Advanced Preparation:

Have the book ready

Copy 15 practice outlines

Copy 45 outline checklists

Pull up the website on the computer

Reserve computer lab time

Procedure:

Introduction/Motivation: In the last lesson, we talked about finding ways to organize what we are going to learn about the ocean. We will be going to the computer lab today and getting on the internet in order to help us do this! Read pages four to five of *Usborne Mysteries and Marvels of Ocean Life* out loud to the students. There is a lot of information there; how can we organize it in order to remember it better? (*Level I – Knowledge*) Brainstorm a list of ideas; we can use an outline.

Step-by-Step Plan

1. Once an outline has been mentioned, students will pull out a sheet of paper and do a quick write on what they know about outlines. (*Gardner – Verbal/Linguistic*)
2. Students will turn to a partner and share what they have written, and then volunteers may share with the class. (*Gardner – Interpersonal*) Collect the quick writes to see what students know.
3. Pull up the interactive outline on [http://interactives.mped.org/view_interactive.aspx?id=722&title=.](http://interactives.mped.org/view_interactive.aspx?id=722&title=)
4. Walk the children through the outline using pages four to five. The Roman numeral I should be the main idea of the page – “ocean giants.” The next indented boxes, A, etc., should be the smaller sections denoted by the bold words – the enormous blue whale, the

largest fish, the killer shark, etc. Two more boxes should be added under each letter to provide two important facts from the section.

5. Students will contribute ideas to complete the outline for pages four to five, and then they will receive a blank outline. Students will work in partners and use pages six and seven to complete the outline. (*Gardner – Interpersonal, Verbal/Linguistic*) They only need to complete one worksheet.
6. When students have the idea, they will take their textbooks to the computer lab. (*Gardner – Bodily/Kinesthetic*) Have them open to pages D28 – D35. Discuss expectations for their outlines. The red headings should be included, with at least two additional facts underneath. What could be added? Vocabulary words, explanations, interesting facts, etc.
7. Students will go to http://interactives.mped.org/view_interactive.aspx?id=722&title= to complete an outline for that section of their textbook. When they are done, they will print off the outline and get a checklist to evaluate their work. (*Gardner – Intrapersonal, Level VI - Evaluation*) The teacher will collect the outlines to grade and will also read over the quick writes.

Closure:

Students will go back to the classroom for a brief class discussion.

- How would you summarize the purpose of an outline? (*Level II – Comprehension*)
- How would you use an outline when reading an informational text, such as a textbook for another subject? (*Level III – Application*)
- What are the parts of an outline? (*Level IV – Analysis*)

In the next lesson, you will be using the information you've learned about the ocean, and you will get to make sound effects in the classroom – even without getting in trouble!

Adaptations/Enrichment:

Use a microphone for the student with a hearing impairment.

A student with a visual impairment should be seated close to the computer so s/he can see as the outline is being filled out.

A student with a mental disability will be provided the red headings and will only need to fill in the two facts from each section.

A student with ADHD should be seated close to the teacher at all times.

Self-Reflection:

Did the students understand how to complete an outline?

Were they able to use the website easily?

Were they able to pick out important facts from the text?

Are they ready to work on outlines more independently, or do we need to go over outlines again and have more guided practice?

Lesson #7: Ocean Sounds

Length: 35 – 40 minutes

Academic Standard(s):

Music 4.3.6 - Use voices and instruments to create appropriate sound effects or accompaniments to a poem or short story.

Performance Objectives:

Given an instrument, the students will create two sound effects to go along with the story.

Using their voices, the students will create one sound effect to go along with the story.

Assessment:

The teacher will listen to each group present. Making tally marks on the provided sheet, record how many sound effects each student makes throughout their section of the story.

Advanced Preparation:

Tom and Jerry DVD set up and ready to go

Divide *The Magic School Bus on the Ocean Floor* into five sections

Run off one copy of each section to give to the groups

5 of each: tambourine, xylophone, wood blocks, and drum

Procedure:

Introduction/Motivation: I hope you have been thinking about those sound effects! Today you'll need to be able to make some of those! Play an episode of *Tom and Jerry* for the students. After watching the episode, have students describe how music played a role in the cartoon. (*Level I – Knowledge*) What might result if there was no music in TV shows? (*Level III – Application*)

Step-by-Step Plan

1. Divide into five groups; move to a place in the room where all group members can sit together. (*Gardner – Bodily/Kinesthetic*) Read *The Magic School Bus on the Ocean Floor*. (*Gardner – Verbal/Linguistic*)
2. Explain that each group will receive a section of the book that they are going to create sound effects for. How will they know what kind of sound effects to make? (Words in the passages, punctuation, etc.) The instruments will be tambourines, xylophones, wood blocks, and drums.
3. Explain that each student will need to use their instrument to create two sound effects. What else could you use to create sound effects? Brainstorm. Each student needs to contribute one sound effect using their voice. What are some sound effects the voice could make? What kind of sounds would they hear at the ocean?
4. One member from each group will come up and randomly pick a section of the book.
5. After they review their section, each group will decide who will play which instrument. Once their choices are made and they have finished reviewing their section, they can come up and get their instruments.

6. Give them about 10-15 minutes to plan their music (*Level V – Synthesis*). Walk around to make sure everyone is staying on task and has the right idea.
7. As you re-read *The Magic School Bus on the Ocean Floor*, allow each group to perform their accompanying music. (*Gardner – Musical*) They may go to the front of the room or stay where they are seated.

Closure:

After the book is finished, have the students return their instruments. They will then go back to their seats and get out their writer's notebook. They will write a paragraph about an event that took place in their lives. (*Gardner – Intrapersonal, Verbal/Linguistic*) Then, they will write a recommendation for the music that they might have had playing during that event in their life. (*Level VI – Evaluation*) Allow a few students to share their writing. I see that we have those side effects down; in the next ocean activity, we will find out how well you can act!

Adaptations/Enrichment:

Use a microphone for a student with a hearing impairment.

Make sure that a student with ADHD or a student that might have trouble focusing is in a group of hard-working students that will help keep him/her on task.

Make sure to group a student with an emotional or behavioral disorder with other students that you know work well with him/her.

A student with an orthopedic impairment or another problem that would cause difficulties playing an instrument could read the passage, using inflection and volume to create drama and intensity in the story.

A group that has a student in a wheelchair would move to where that person was and pull desks together to work on the project.

Self-Reflection:

Did the students understand the role of music in accompanying text, shows, etc.?

Was each student able to contribute at least five appropriate sound effects?

Did the students work well in their groups?

How could this lesson be improved if it were to be done again?

Lesson #8: Ocean Skits

Length: 35-40 minutes

Academic Standard(s):

Theater 4.6.1 – Create a short dramatic scene from narrative literature.

Performance Objectives:

After reading a selection, the students will create a short dramatic scene that meets 100% of the topics on the checklist.

Assessment: The students and teacher will collaborate to make a checklist. The teacher will use the checklist as the students perform their skits.

Advanced Preparation:

Check out a copy of *Hello Ocean* from the library

Procedure:

Introduction/Motivation: Before we get to see all of your acting skills like I mentioned earlier, let's read this story together! Read the book *Hello Ocean* by Pan Muñoz Ryan (*Gardner – Verbal/Linguistic*). As a class, summarize what happens in the book. (*Level II – Comprehension*) What does she notice? What does she do?

Step-by-Step Plan

1. What would you do if you went to the ocean? What type of things would you pay attention to?
2. Students will divide themselves into groups of 3-5 people. (*Gardner – Interpersonal*)
3. What is a skit? (*Level I – Knowledge*) How would you decide if a skit was good or bad? (*Level VI – Evaluation*) Discuss in groups and choose top five. Write every group's top five on the board and decide on a class top five. These will make up the checklist for the assessment.
4. Explain task: Create a skit about your day at the ocean. (*Level V – Synthesis*)
 - a. Should be four to five minutes long
 - b. Memorize the script
 - c. Everyone needs at least five lines
 - d. Will be performed outside on the next day (*Gardner – Naturalist*)
 - e. If any props are necessary, they should be brought for the following day.
5. After the skit is written, it needs to be approved by the teacher.
6. Find a place in the room where there is enough space to get up and practice acting out the skit. (*Gardner – Bodily/Kinesthetic*)

Closure: On the second day, the students will perform their skits for the class. The teacher will assess based on the checklist created by the class. I noticed that some of you talked about the waves in your skit; do you know how important the waves are? Think about it, and we will be seeing what they do in our next science experiment.

Adaptations/Enrichment:

Students needing enrichment should write a longer skit that does not lose quality and is able to maintain audience engagement.

A student with speech problems will have a minimum of three lines instead of five in the skit.

A student with a mental disability will be allowed to use the script when performing the skit in front of the class.

All students and the teacher will use a microphone for the student with a hearing impairment.

Self-Reflection:

Were the students able to create and perform skits that were interesting and fun to watch?

Did they come up with appropriate criteria for the checklist?

How could this lesson be improved if I wanted to do it again next year?

Lesson 9: Ocean Erosion (science)

Length: 25 – 30 minutes

Academic Standard(s):

Science 4.3.5 Describe how waves, wind, water, and glacial ice shape and reshape Earth's land surface by the erosion of rock and soil in some areas and depositing them in other areas.

Performance Objectives:

Upon completion of the lesson, the students will write an explanation of how waves in the ocean reshape the land surface using 5 of the 6 related words (waves, water, sand, erosion, reshape, deposit).

Assessment:

The students will write their explanations in their science journals at the end of the lesson. The teacher will collect the journals to read.

Advanced Preparation:

Get plastic shoeboxes, a bag of sand, and straws

Procedure:

Introduction/Motivation: What do you know about waves? How do they affect the sand and the surface of the earth? The experiment we are about to do will help us to figure that out! Students will need their science journals, a pencil, and a partner. (*Gardner – Interpersonal*) Once in partners, one student will need to go up and get the materials for the experiment.

Step-by-Step Plan

1. Students will fill one end of a plastic shoebox with sand and then add water until the sand is about half covered in the shoebox.
2. In their science journals, the students will draw the shoebox and its contents. (*Gardner – Visual/Spatial*)
3. Once the drawing is done, the students will use a straw to blow into the box to create waves. They should observe and discuss what they see happening (the water should be moving the sand around). (*Gardner – Naturalist*) Once they see changes taking place, they should draw another picture in their journal of what they see. (*Level III – Application*)
4. Until all students finish, they may experiment with different amounts of sand and water and different ways to blow into the straw. Any observations they make should be recorded in their journals.

Closure: Bring the class together to discuss what changes they saw and what was happening in their shoeboxes. How do waves reshape Earth's land surface? (*Level I – Knowledge*) What were the different parts needed for erosion to take place in this experiment? (*Level IV – Analysis*) Brainstorm a list of ideas on the board, making sure to add all of the related words listed in the objective. Below their illustrations in their science journals, students should write an explanation of erosion in their own words. (*Gardner – Verbal/Linguistic, Level II – Comprehension*) Tomorrow, we are going to the pool, but before we do, I want you to think of some ways that pool water or lake water might be different from ocean water.

Adaptations/Enrichment:

A student who needs enrichment will be asked to read the section on erosion in the textbook and include deposition in his/her explanation of erosion.

A student with writing difficulties may dictate his/her answers to the teacher for the teacher to record.

For a student with a vision impairment, the partner will be asked to thoroughly describe what s/he is observing in the experiment.

Self-Reflection:

Did the experiment work?

Were the students able to work together to complete the experiment?

Did they understand erosion?

How could this lesson be improved?

Lesson 10: Gross PE, pool trip

Length: half of one day

Academic Standard(s):

Science 4.3.3 – Identify salt as the major difference between salt and fresh waters.

Physical Education 4.7.1 - Participate in physical activities that are enjoyable.

Performance Objectives:

Upon completion of the lesson, the students will orally identify salt as the major differences between salt and fresh waters 100% of the time.

At the pool, the students will participate by swimming 100% of the allotted swimming time.

Assessment:

The teacher will ask the students what the major difference is, and then the teacher will observe the students as they are in the pool.

Advanced Preparation:

Get two cups for each pair – one with salt water and one with fresh water

Reserve pool time

Make sure a lifeguard will be able to talk to the students

Procedure:

Introduction/Motivation: I asked you to think of ways that ocean water might be different than other types of water. What types of ideas did you come up with? After the discussion, pass out a cup to each pair. Encourage students to look at the cups, to smell them, to feel them, and even to taste them. What do they notice? Once each pair has had time to explore, come back for a class discussion, and explain that salt is what sets ocean water apart from other waters. How does this apply as we get ready to go to the pool?

Step-by-Step Plan

1. In their partners (*Gardner – Interpersonal*), the students will and brainstorm a list of safety rules for a pool. Why is it important to have safety rules? (*Level I – Knowledge*) The partners will then draw a pool on a sheet of paper and write the rules where they apply. (*Level III – Application*)
2. The partners will join another set of partners to form a group of four. They will share their illustrations and brainstormed list of rules with each other.
3. Students will get on the bus and go to the pool in Wabash.
4. A lifeguard will talk to students about the safety rules at the pool and why they have them. The lifeguard will also talk about how important it is for students to be able to swim and take precautions around areas of water such as pools, lakes, oceans, etc.
5. The students will then have an hour of free time to swim. (*Gardner – Bodily/Kinesthetic*) The teacher will observe students to assess their participation and interaction with other students.
6. Leave the pool and go back to the elementary school.

Closure: Once back in the classroom, the students will write about their day. (*Gardner – Verbal/Linguistic, Intrapersonal*) They will write a paragraph comparing and contrasting their list of rules with the rules they saw at the pool. (*Level IV – Analysis*) They will write another paragraph addressing the following question: What is the value of safety rules and knowing how to swim? (*Level VI – Evaluation*)

Adaptations/Enrichment:

For enrichment, the students will use a Venn diagram to compare and contrast their safety rules with the ones at the pool.

A student with difficulty writing may use the computer to type their reflections.

A student with ADHD or ED will be partnered with another student who is able to work well with him/her.

Self-Reflection:

Did the students enjoy being at the pool? How much did they learn about water safety and the importance of following the safety rules? What would need to be changed if this field trip was taken again next year?

Lesson #11: Ocean Cooking

Length: 30 minutes

During this lesson, the students would work in groups of four to create jell-o aquariums following the directions from <http://www.recipezaar.com/Jello-Aquariums-106834>. In order to prepare for the lesson, the teacher would need to gather a plastic container, a box of blue jell-o, and gummy candies for each group. The students would prepare the jell-o and then add in their gummy ocean creatures; this would help them work on measuring skills. Once the jell-o set, the students would have their own jell-o aquariums to eat and enjoy.

Lesson #12: PE – Fine Motor

Length: 20 minutes

Students will work to develop their fine motor skills as they also learn vocabulary skills related to the ocean unit. Students will be expected to know and spell a variety of words including erosion, cardinal directions, rounding, etc. One center that will be set up in the classroom throughout the unit is one that will give students opportunities to practice spelling the words. They will be able to write the words out in sand and to spell them out with little shells, which will also allow them to practice their fine motor skills. In order to get this center set up, the teacher will need a list of vocabulary words, a bucket of sand, and a lot of little shells.

Integration of Technology

The students will be expected to use technology several times throughout the unit. First of all, in order to participate in the interactive bulletin board, the students will have to use the internet in order to find their answers. Also, the students will be using the Internet for the interactive outline during the reading lesson on ocean outlining. They will use the Internet as they search for the picture of their ocean animal as well. As they trace the enlarged animal, they will use the opaque projector which also requires technology. Students will also be expected to use the computers to type the final drafts of their narratives, and they will be using technology whenever they present something in class using the microphone.

Field trip

The students will be taking a field trip to the pool in Wabash during the ocean unit. At the pool, the students will be learning about water safety from one of the lifeguards. They will be comparing their ideas of water safety and rules to what they learn from the lifeguard. Also, during the life guard's presentation, the students will learn how to apply safety information to oceans and other bodies of water in order to be as safe as they can be when they are around water. This field trip will also tie into the physical education lesson involving gross motor skills as the students will have the opportunity to participate in an hour of free swim time. This will give them a chance to practice and further develop their gross motor skills as they swim.

Ocean Unit Trade Books

Cole, Joanna. *The Magic School Bus on the Ocean Floor*. New York: Scholastic Paperbacks, 1994.

- Students go on an adventure with Ms. Frizzle onto the ocean floor, traveling through all of the layers of the ocean. They learn something about almost every aspect of the ocean imaginable.

Cousteau, Fabian. *Ocean (American Museum of Natural History)*. New York: DK Adult, 2008.

- This book takes students on a journey throughout the depths of the ocean. It includes a myriad of pictures of the different places, processes, and life that make the ocean what it is.

DK Publishing. *Eye Wonder: Ocean*. New York: DK Children, 2001.

-Students learn a lot about the ocean from reading this book. The pictures enhance their knowledge as they illustrate what the authors are talking about, allowing students to gain a deeper understanding.

Frasier, Debra. *Out of the Ocean*. New York: Voyager Books, 2002.

- A young girl exploring the ocean loves to bring home treasures such as feathers, shells, etc. Her mother asks her to bring home objects such as the sun, the sound of the waves, and the silver moonlight, so the girl must decide what this means and how to do so.

Herriges, Ann. *Whales*. Minneapolis, MN: Bellwether Media, 2006.

- This book contains information on one of the biggest animals in the ocean, the whale. With pictures and a lot of facts, students are able to easily learn about them.

Munoz Ryan, Pam and Mark Astrella. *Hello Ocean*. Massachusetts: Charlesbridge Publishing, 2001.

- In this book, a young girl describes her experience with the ocean through the use of her five senses. It helps students to imagine a complete sensory experience with the ocean.

Rakitin Cole, Sarah. *Awesome Ocean Science: Investigating the Secrets of the Underwater World*. Vermont: Williamson Publishing Company, 2002.

- Divided into six sections, this book provides a variety of different topics related to understanding the ocean. There are also many minilessons, activities, and experiments that would help the readers understand the ocean even more.

Sherry, Kevin. *I'm The Biggest Thing in the Ocean*. New York: Dial Publishing, 2007.

- This book gives its reader a look at some of the different animals in the ocean while comparing their sizes. A blue squid peruses through the ocean, noticing that he is bigger than all of the animals he sees.

Stierle, Cynthia and Annie Crawley. *Ocean Life From A to Z Book and DVD*. New York: Reader's Digest, 2007.

- In this book, students will find animals of the ocean for every letter in the alphabet. The included DVD takes students on an adventure as a captain of a boat, a videographer, and a diver.

Time-Life Books. *Ocean Life*. New York: Time-Life Books, 2000.

- This book is full of ocean facts and trivia which students can learn as they read. It also includes animal mobiles which can be displayed in the classroom to enhance learning.

Dear Parent/Guardian,

I am so excited about our class's upcoming unit, and I cannot wait for you and your student to be a part of it. Over the next few weeks, we will be studying the ocean.

At the end of the unit, we will be presenting an ocean exhibit and you as well as other students, teachers, and administrators will be invited to attend. The students are going to choose an ocean animal and will be writing a narrative about a day in the life of that animal. We then will be working in art to create a model of that animal to include in a display of the ocean that we will set up. When you come into our classroom, the students will be presenting their stories. It is going to take a lot of work, but I'm sure it will turn out to be a wonderful display.

The other big component of our unit is a trip to the pool in Wabash. There, we will be talking about safety at the ocean and around other bodies of water as well. After the presentation, the students will have an opportunity to participate in some free swimming time. Please check your child's folder for a permission slip that will be sent home soon.

If you have any questions, please feel free to contact me. I am eager to get the unit started, and I think it is one that the students will really enjoy. I hope that you will share their enthusiasm as they talk to you about what we are doing!

Sincerely,