

## National Geographic Educator Certification Lesson Template

*Please Note: This lesson plan should be your own work and written in your own words with sources cited. You are encouraged to take inspiration from National Geographic and expected to build upon them to create your own unique plan.*

**Your Name:** Debra M. Morgan

**Lesson/Activity Title:** The Land the Oceans and Plastic Bags!

**Recommended Grade(s):** 1<sup>st</sup> Grade

**Time Needed:** 1-2 weeks

### Objectives:

By the end of this lesson, students will be able to:

- *be able to explain the effects of plastic bags to our oceans and animals.*
- *be able to explain the effects of plastic bags to our land and animals.*
- *be able to recycle/reuse plastic bags.*
- *communicate how to reuse plastic bags through video*
- *connect globally to ask questions about plastic bag pollution in another part of the world.*

### Materials Needed:

*What materials will need to be gathered or prepared for this lesson?*

- Plastic bags
- Mailing envelope
- Parent help to cut the plastic bags
- SDG's (Sustainable Development Goals) Poster
- National Geographic Education Site: Special Collection, Ocean plastics Video: How We Can Keep Plastic Out Of Our Ocean and pictures the Great Pacific Garden Patch)
- Book: One Plastic Bag Isatou Ceesay and the Recycling Women of The Gambia by Miranda Paul
- Character Trait Sheet
- Mathematician/Scientist poster sheet
- iPad/iPhone7
- Skype/WhatsApp for communication
- Easel
- Duct Tape (assorted colors, left over rolls from parents)
- Poster paper
- Drawing paper
- Colored pencils, markers, crayons

### Preparation:

*What should be prepared in advance? (Two months in advance.)*

- I had to get students thinking about plastic in order to start collecting plastic bags for their project without giving too much information as to what they will be doing with the plastic bags. So, I introduced the United Nations Sustainable Development Goals, focusing on #14 Life Below Water and #15 Life on Land. Also, showed a couple pictures of plastics in the ocean using the internet.
- At this point we discussed how plastic bags were a problem on the land in the ocean for our environment and the animals.

- I then told students that they were going to do a project that involved recycling /reusing plastic bags, the ones they get from stores like Wal Mart and Farm Fresh. I also told them that they would get to teach some high school students how to do the same project.
- We talked about how it was important to “Take Action” locally and globally. This is done year round in my classroom.
- At this point I sent a letter home to parents informing them of our project and the plastic bags started coming in.
- I also had parent volunteers cut the bags. You have to cut the handles off and a very thin strip off the bottom to open the bag.
- Package for Diourbel: I mailed a package to Mr. Diack in Diourbel, Senegal that included the SDG poster, the book: *One Plastic Bag* Isatou Ceesay and the *Recycling Women of The Gambia*, by Miranda Paul, and a sample jump rope.
- My classroom and Mr. Diack’s classroom sent videos via WhatsApp saying hello.

### **Directions:**

*How does the lesson work, step by step?*

#### **Day 1**

First, the teacher and students sit on the carpet and talk about plastic bags and the ocean. (Living on the coast most students have prior knowledge of how plastic bags can look like jelly fish and harm our sea turtles here in Virginia Beach.)

Second, the teacher uses the Promethean board to show the video from the Nat Geo Ed: [How We Can Keep Plastic Out Of Our Ocean.](#)

Third, students brainstorm ways they can help keep plastic out of our oceans.

#### **Day 2**

First, students come to the carpet and the teacher reads the story, [One Plastic Bag Isatou Ceesay and the Women of The Gambia.](#)

Second, students retell the story.

Beginning: Plastic bags were everywhere.

Middle: The goats were dying.

Ending: Isatou made purses out of the bags.

Third, students turn to their partners and discuss the question, “Can one person make a difference?” Have partners share their answers.

Fourth, students brainstorm a list of character traits for Isatou as teacher records them on the easel.

Students then return to their seats and complete the character trait sheet independently.

#### **Day 3**

First, the teacher and students sit on the carpet and the teacher has a plastic bag and tells the students, “Inside this plastic bag is what you are going to make with all the plastic bags you have been collecting. What do you think it is?” Listen to all the suggestions! Finally, take out the jump rope! After you take out the jump rope explain what they will do next!

Second, tell students that today they are Scientist and they have to solve a Math problem to figure out how many plastic bags they each need to make their own jump rope. Divide students into groups of 2-3 give

them makers and each group a poster paper with the story problem attached. Teacher reads the problem aloud as needed. (Results: students need 24 bags each in 3 rows of 8.)

Third, student groups share their results and give feedback to each other.

Note: On this day the class also communicated with Diourbel, Senegal via WhatsApp asking questions about plastic and if it was a problem there too.

#### **Day 4**

**Jump Rope Construction Day 1!** (Bags have already been cut by parent volunteers.)

First, students count out their 24 bags from the boxes they have been piled in over the last two months.

Second, they make them into circles and knot them together in 3 rows of 8. Teacher demonstrates several times then walks around and helps. Students who can knot them together faster can go around and help others. As they get their 3 rows of 8 knotted together, students bring them to the teacher to tape 3 ends together with duct tape, and stores them on the counter for day 2 of construction.

#### **Day 5**

**Jump Rope Construction Day 2!**

First, give each student a piece of drawing paper to draw a picture of themselves and friends using their jump ropes.

Second, as students are working on pictures, the teacher calls one student at a time to come make their jump rope. The student will hold the taped end as the teacher braids the rope. Once braided the other end is taped. Both loose ends are cut to the tape and jump ropes are placed in chair pockets until all are done and the class can go outside to try them out. (This does not take too much time, but a couple parent volunteers would help.)

Third, Students line up with their jump ropes to go outside and test them out. They actually work very well.

#### **Day 6**

First, the teacher uses the promethean board to show students pictures on Nat Geo Ed of the Great Pacific Garbage Patch. In order to bring them back to the purpose of plastic bags and the effect they have on our environment.

Second, the teacher and students sit on the carpet and discuss what they have learned about plastic bags.

How do plastic bags hurt our oceans and animals?

How do plastic bags hurt our lands and animals?

How can you reuse or recycle plastic bags?

What did you learn about plastics in Diourbel?

Can one person make a difference?

Last year it only took about a month to collect plastic bags, this year it took two months. Why?

Second, students share with a partner the most important thing they have learned. Then each partner shares with the class what their partner has said.

#### **Day 7**

First, students are put in groups of 2-3. They are given colored pencils and crayons, and a poster paper per group. The theme of their poster was: Reduce the Use of Plastic Bags! Students were told they could use any example on their poster that we had learned about.

Second, as student groups worked on their posters, students made a video to send to the students in Mr. Diack's class that showed them how to make a jump rope out of plastic bags.

**Global Connection Follow-Up:** One week later many of Mr. Diack's students came to school one morning during their holiday break (Ramadan) just to make a jump rope for our class. They had collected plastic bags and strips of plastic. My class was so excited and couldn't believe they came to school on a holiday just for us. Video was sent via WhatsApp. Note: WhatsApp proved to be our best form of communication.

### **Suggested Modifications:**

*Suggest ways in which the lesson might be modified for specific student audiences, different abilities, etc.*

- This lesson and activities allows for students to work at their own ability.
- Students who may need assistance can be grouped with helpful students during group work.
- Students who cannot write can communicate verbally as teacher transcribes their answers.
- If you have students who have difficulties with coordination, pair them with another student to knot their jump rope rows.
- Allow students with attention difficulties to sit close to the teacher on the carpet.
- During video or any use of technology that might be cause for louder noises, supply headphones for students with noise sensitivity.

### **Possible Extensions:**

*How might you extend this lesson to enhance the learning?*

- Next year the entire 1<sup>st</sup> grade will complete this lesson and activities.
- I think it would be great if we started a "Reduce the Use of Plastic Program" at our school involving parents and our cafeteria. Students need to learn to "Take Action" by thinking globally but acting locally to make a difference.
- I am also working on getting the directions and what tools would be needed to make the purses and sleeping mats out of plastic bags for the high school students in Diourbel, Senegal.
- Hoping to get Skype working with Diourbel, Senegal.

### **Learning Framework Connections:**

*How does this lesson connect with one or more of the attitudes, skills, and knowledge areas of the Learning Framework?*

#### **Attitudes**

Responsibility: This lesson and its activities inspire the attitude of responsibility. As I introduced this lesson sitting on the carpet and talking to my students about plastic bags and listening to what they already knew. My young students showed their concern for the ocean and the animals in it. As we watched the video, How We Can Keep Plastic Out of Our Ocean, students got upset when the dolphin came into the picture and it looked as if it was going to eat the plastic bag. They actually yelled, "No! Don't eat that it's not a jelly fish!" They also, were very concerned and worried by all the plastic they saw in the ocean and upset that some people didn't care. My students also had to realize that not all countries are as fortunate as we are to have recycling or garbage pick-up which hinders the global plastic problem. This is where our class in Diourbel, Senegal comes in. They are struggling with plastic trash, but working on it in a different way giving my students a different perspective on plastic pollution. Again, my students showed compassion and concern for their friends and learned that together we can make a difference. (SDG's)

#### **Skills**

Communication and Collaboration: This lesson and the activities develop both the student's communication and collaboration skills. Students worked in small groups of 2-3. They made posters, videos, and pictures, had discussions, and shared out each other's ideas. They communicated via WhatsApp with Mr. Diack and his high school students. Communication also extended to student's families. I heard many stories from parents about how they were learning about not using plastic bags at home. One parent came in and told me her son came home saying, "We have to "Take Action" right now! And she asked, "What do you mean?" He said, "We have to go outside right now and pick up all the plastic trash in our neighborhood so the animals don't get hurt or die." So she said, "Out we went before dinner and picked up plastic and we were not very happy with all the plastic trash we found!" Some of my students and parents picked up trash at the beach also when they were there, so the communication and collaboration continued at home.

### **Knowledge**

Wild Life and Wild Places: This lesson and its activities validated the student's knowledge that plastic bags have a negative impact on animal habitats on land and in the ocean. Life on Land: Students learned about the goats dying in the story, One Plastic Bag Isatou Ceesay and the Recycling Women of the Gambia, by Miranda Paul. Isatou was one women, who even though she was made fun of and called names, she was courageous and brave and helped her village clean up the plastic. This story told my students that one person can make a difference. Life Below Water: Students watched the video on Nat Geo Ed, How We Can Keep Plastic Out Of Our Ocean. They saw how plastic trash enters the ocean almost everywhere all over the world and is ingested by marine life. The ocean has no boundaries. They saw plastic on the beach and in in the water, it made them sad for our sea turtles and dolphins in Virginia Beach.

### **Vocabulary:**

*What new vocabulary will students need to learn to complete this lesson?*

SDG'S (Sustainable Development Goals), Pacific Garden Patch, Recycling/Reuse/Reduce, Locally/Globally, The Gambia, Diourbel, Senegal,

### **Assessment:**

*How will students be assessed for this lesson?*

1. Character Traits (L.A.)
2. Story Problem (Math/Science)
3. Student groups presented their posters/feedback. (Science/Oral Language)
4. Class discussions. (Science, L.A. Oral Language)

### **Resources:**

*What outside materials did I use to support this lesson? Please include links.*

1. Nat Geo Ed
2. <https://www.nationalgeographic.org/education/ocean-plastic/>
3. <https://youtu.be/HQTUWK7CM-Y>
4. <https://www.nationalgeographic.org/encyclopedia/great-pacific-garbage-patch/>
5. Book: One Plastic Bag Isatou Ceesay and the Recycling Women of The Gambia
6. <https://www.youtube.com/watch?v=eXBEteUYAEs&feature=share>
7. [Mathematician Challenge.docx](#)
8. [One Plastic Bag.pdf](#)