#### Deer Island Perimeter Walk Scavenger Hunt/Field Guide

Names of everyone in group:

Locate and answer the questions:

Scan the horizon and describe what you see.

What are the rules one should follow when walking on a public path?

How many famous Boston buildings can you name?

What is the name of the Memorial on the map?

Find and name 5 unnatural items you see on the beach.

What is the difference between the color of the water in the Caribbean and the water below? Which water is more likely to allow plants and other living creatures to exist?

How many storm drains have you come across?

Find, sketch, and label at least 5 different plants you see:

Families pay \$1,300 for bench plaques and there is a huge waiting list. Explain why families spend this money.

How many water towers can you locate and can you name the towns they are located in?

How many bridges can you see and what are their names?

What items are removed at the Grit Level?

What is the name of the Pump Station?

Count the lighthouses and name as many as you can.

Occasionally you'll see broken shells along the path or off the path. Why? How did they get there?

Name 1 important event or fact for each of the Harbor Islands:

Look down in the water, are the large stones you see naturally formed or man-made? How do you know? Where do you think they came from?

What things can you see floating in the Bay? What do you think they are?

What is the speed limit inside the plant?

What shape does one of the MWRA maps of Deer Island most look like?

## FACT FINDING:

How many miles is the tunnel into the bay?

How many miles is Nut Island/Quincy?

How many communities send their wastewater to the Deer Island Treatment Plant?

How many gallons of sewage are processed daily? What will that fill?

What is scum?

What is sludge?

What is wastewater?

How many miles is the harbor walk?

Why do we clean sewage and not just dump it into the harbor? Be specific!

What are pink-topped round buildings for on the plant site?

# **Count the following:**

 # of items sited

 Sedimentation tanks

 Cranes

 Vehicles on the plant site

 Security Cameras

 Benches

 Different types of boats

 Lobster Traps

Found and in which direction (N,S,W, E)

The Kennedy Library

The Painted Gas Tank

Logan Airport Flight Tower

**The Prudential Building** 

Choose one of the above and sketch it below in detail:

## Math Problems:

What is the total cost of putting the benches in the public park?

If the Winthrop Water Tower holds 250,000 gallons, and the average family uses 100 gallons of water a day, how many days will the water supply last?

The Winthrop Water Tower is 40ft in diameter. What is the radius? What is the circumference?

The Winthrop Water Tower is 100ft tall. The Deer Island Digesters are 14 stories high. If a story is 10ft then how high are the Digesters? What is the difference in height between the Winthrop Water Tower and a Digester?

The Deer Island Digester is 90ft in diameter. What is its radius? What is its circumference?

There are 55 diffusers which expel clean water into the harbor. If each diffuser has 8 ports, how many total ports is that? If they expel 350million gallons per day, then how much water does each port expel?

When the Deer Island plant was being built, 3,500 employees per day worked at the site. How many employees were employed in a 5 year period?

If there are 47 students taking the Harbor Walk trail, what is the total number of miles that have been walked? If 10 adults make the same walk, what is their total number of miles? What is the difference in miles walked?

Write two original math word problems using information that you discovered today.

# **SUPER CHALLENGE**:

If the MWRA serves 890,000 households and there are 5 people on average per household, how many people does the MWRA serve?

If the MWRA serves 5, 500 businesses and there are approximately 20 people employed in each business, how many business people are served?