

Name: _____

Lab Partner: _____

Date: _____

Plankton to Plastic Pollution STEM Kit Science Notebook

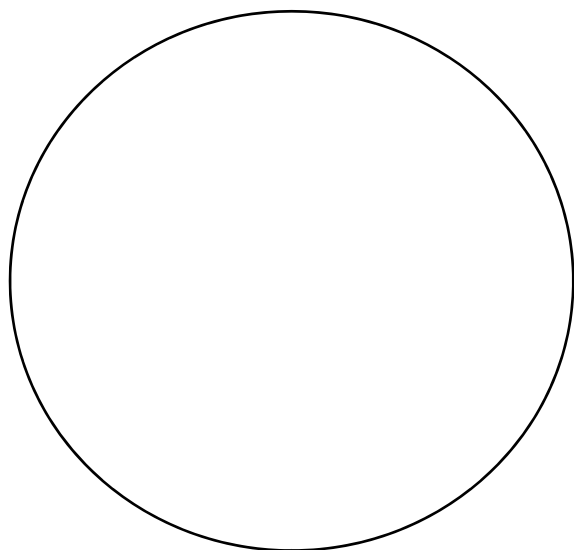
The NSEOC highly recommends students keep a science notebook for ALL science classes, but if this is not possible, all of the Science Notebook prompts from the Plankton to Plastic Pollution STEM Kit booklet are included with space for students to write, draw or sketch as needed. The page numbers reference the page in the booklet the original prompt can be found.

Part 1: The Plastic Age

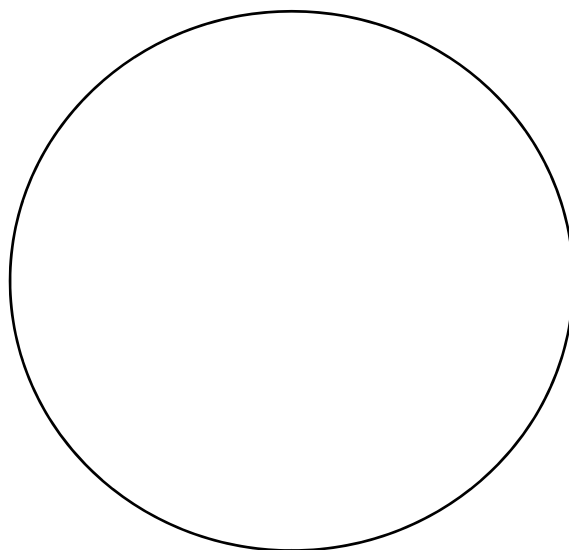
Page 3 – Make a list of plastics that you use. In one column, list some of the plastic that you use over and over again, in a second column, list the plastic items that you use only once before throwing them away.

Part 2: Plankton to Petroleum

Page 5 – Draw several examples of each of the different types of organisms you see through the microscope below.



Diatoms



Zooplankton

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Page 5 – Describe the differences you see between the phytoplankton and the zooplankton.

Page 7 – Since the petroleum forming process continues to this day, why are we worried about running out of petroleum (oil)?

Page 7 – Tape your vial template here and draw and write what you observe immediately after shaking the vial.

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Part 3 – Petroleum to Plastic

Page 10 – Tape the graph template here and plot the data from the table on page 10. Draw a smooth curve through the data points and extend your curve to the years 2020 and 2030.

Page 11 – How many millions of tons of plastic do you predict we will be producing in the years 2020 and 2030 if we don't slow down?

Page 11 – Check on your plankton settling model and draw your second observation in the vial template on page 2. Write a description of what you see here.

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Part 4 – Plastic to Pollution

Page 14 – Sketch the map of the world's oceans from page 13 of the booklet. Add labels for the five gyres.

Page 15 – How were the currents you created in your model similar to and different from the real ones shown on the map on page 13 of the booklet?

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Part 5 – Problems with Pollution

Page 17 – Complete the following table using the food chain model in the kit and the instructions on pages 17-18.

| Phytoplankton | Zooplankton | Herring | Cod |
|---------------|-------------|---------|-----|
| | | | |

Page 18 – Make a bar graph of the number of plastic beads in each organism from the table above. Write a description of what is happening.

Page 20 – Check on your plankton settling model and draw your third observation in the vial template on page 2. Write a description of what you see here.

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Part 6 – Solution to Pollution

Page 19 – What will you refuse?

Page 20 – What will you reduce?

Page 20 – What will you re-use?

Page 20 – What will you recycle?