Plastic Scientific Enquiry

1. What is your product? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. What is it used for? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Is it a single use plastic? *(Circle answer)* YES NO

If yes, why is it only single use? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­\_\_\_

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4. What four properties does your plastic product have that makes it fit for purpose and why?

For example; translucent, rigid

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5. Gently place your product into a tray or container of water. Leave it still for 5 minutes whilst continuing with the questions. Does it float?

YES NO

After 5 minutes gently stir the water round to mimic wave action. Does your product now sink?

YES NO

7. Look at your product. Is there a plastic identification code present? If yes, draw the symbol below. If it is not present, use the support sheet to find your product and its relevant code. Draw the symbol below.

8. What is the polymer name of the plastic used for your product? Use the support sheet to help.

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9. What is the name of the monomer for this plastic? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. Name another item that can be made from this plastic?

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11. This takeaway coffee cup is an example of a **composite** (a combination of two of more materials with different properties that are joined together to make a more useful product). What two materials make this cup?

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12. Why were these two materials combined together?

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13. Plastic has been found on every beach in the world, even remote islands where no one lives. Your product may have been found there. List 4 ways your product may have ended up in the ocean/beach.

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14. Using the support sheet and team discussions, identify how your product causes direct damage to wildlife and habitats.

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15. How could you avoid using this product?

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16. Can you recycle your product?

YES NO

17. How could everyone in your school reduce the amount of this product that is wasted? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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