

CHECKLIST



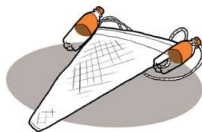
GROUP C

Please read plastic pirates booklet p. 20 - 21 first- This checklist complements the booklet.

The aim of Group C is to examine two different types of waste: larger floating waste and microplastic.

MATERIALS

- Sampling net: order specific micro plastic net that you can order from plastic pirates Website Sampling net order form | Plastic Pirates (plastic-pirates.eu)
- two empty 1,5 l plastic bottles as floats for the net,
- cable ties or hair ties for fastening * String /rope (to cast the net) 10 m, minimum 8 mm thick
- Stopwatch/smartphone
- Tape measure or string, 20 m long
- Three sticks of similar size (may be found at the sampling site)
- Optional: Use three oranges



Construction of the net:

Fill 1.5 l plastic water bottles half with water. Attach to bottles at the sides of the net to act as floats. Try first in water that the net is halfway in the water. If not, add or reduce water from bottles as necessary.

APPROACH / EXPLANATION

Microplastic net

- Find suitable spot on a bridge or an accessible spot on the riverbank
- when sampling microplastics from a bridge, it is recommended to use longer ropes (+10 m) or to adjust the length of the rope to the height of the bridge (e.g. if the bridge is 5 m high, a rope length of 15 m is recommended).
- Throw the net far from the bridge, you can try several times. Net opening faces the opposite direction to the river's current so that river water can flow through the opening. You can tie the net to a bridge railing or a bollard.
- Note down the current time. The net should be in the river for 60 minutes.

- Once the net is attached, take a photo of it floating in the river.
- After 60 minutes retrieve the net and take a note of the end time.
- Seal the net so that it doesn't come open again.
- Let the net and its contents dry.
- Send the net as is – without touching its contents!

Measuring flow speed

- Measure 20 m from the floating net along the riverbank
- Drop sticks or orange right next to the floating nets
- Stop the time it takes for the stick or orange to reach the 20 m mark
- Note the results and calculate as described on p. 20 of the Project Booklet

Observation floating waste

- Choose a point on the bridge close to your net
- Note the GPS coordinates of your observation point
- Estimate the width of the river
- Note the start time of your observation
- Keep a lookout for floating waste. As soon as you see an object, try to take a photo of it. Make the other members of your group aware of it and, together, attempt to identify the object and to find out what material it is made out of. Waste that is stuck and not drifting is not counted.
- Keep a watch for floating waste for at least 30 minutes.

Optional analysis of net contents

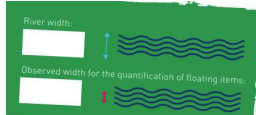
- As soon as the net (and its contents) are dry, open it and empty the entire contents onto a tray.
- Ensure that you have removed all materials; otherwise, small pieces could remain in the net.
- Look for microplastic using a dissecting microscope or a magnifying glass and sort the plastic pieces into fragments and pellets.
- Make a note of the results in the table on page 29 of the Project Booklet. Please see the opposite page for details on how to recognise microplastic.
- Then pack the entire contents of the net (microplastic and other objects) into a tightly sealable bag and label this bag with the name of your school or organisation and your group name.
- Your teacher/group leader will return this bag to us along with your net so that your results can be confirmed.



DATA UPLOAD

Please fill in all fields. If there is no waste in a circle, please enter 0.

Next upload the data (<https://www.plastic-pirates.eu/at/results/data-upload>). Then we - the Plastic Pirates research team - can verify and evaluate the data.



GROUP C **FLOATING WASTE**

Flow speed m/s

Start time: : : End time: : : Time in minutes:

Run	Distance in metres	Time in seconds
1st stick	<input type="text"/>	<input type="text"/>
2nd stick	<input type="text"/>	<input type="text"/>
3rd stick	<input type="text"/>	<input type="text"/>

Microplastic

Start time: : : End time: : : Time in minutes:

	Pellets	Fragments	Total
Number of fragments caught	<input type="text"/>	<input type="text"/>	<input type="text"/>
Number per 1,000l of water	<input type="text"/>	<input type="text"/>	<input type="text"/>

Total number of floating waste

Floating items

List of floating waste (item and material, e.g. 'bottle (plastic), bag (paper), string (other)')



Any more questions? Watch the explainer Video.

[Videos | Plastic Pirates \(plastic-pirates.eu\)](https://www.plastic-pirates.eu)