In this activity, learners work in groups to guess litter types most commonly found on beaches. They compare their assumptions to published data from national or international research or to real data recorded through their own field research. They reflect on specific consumption habits that generate marine litter and think about how changes in these behaviours can prevent its generation.

**SUBJECTS**
Mathematics, Science, Social Studies

**LEARNERS’ AGE**
12-15 yrs

**DURATION**
Group guessing activity: 60 minutes
Coastal cleanup and data recording: 1 day
Comparison and conclusion: 60 minutes

**OBJECTIVES**
• To set a hypothesis and then test it.
• To practise reading and comparing data and charts.
• To reflect on how shifts in behaviour can prevent waste generation.

**INTERNET SOURCES**
International Coastal Cleanup: www.oceanconservancy.org/our-work/international-coastal-cleanup
Take 3 Clean Beach Initiative: www.take3.org.au
Ducks on the go / Where did they go?

**Material and Equipment**
Notebooks, gloves and bags for the clean up

**Instructions step by step**
1. Each learner guesses the top 3 litter items they think is most commonly found on a beach they know (in number of items). The learner then notes them in descending order.

2. In groups of 4, they discuss their guesses. Were there any items that the groups did not guess?

3. In groups, learners compose a list of the Top 10 litter items overall, in descending order (List A).

4. It is time to test their hypothesis. They browse through the given links and complete List B. After comparing this list with their list, how do they differ? Were there items that they did not think of?

5. In case of repeated clean ups, learners can compare their data with that of previous years (List C) and track the differences. Alternatively they can compare findings with published data from the literature.

6. Learners visit a beach with their peers and do a coastal clean-up, recording the litter items they find. They list the most commonly found items (List D). How does this list differ from the previous two?

7. Learners discuss how the items in the Top 10 list could have been prevented from becoming marine litter. What can they personally do to generate less waste?

Before visiting the beach check the safety precautions list in activity D4.
Marine litter is usually recorded by number of items and less frequently by ‘weight’ or ‘volume’. Counting individual items and grouping according to type of material, use, and source is considered as more helpful information when implementing measures at all levels (linking an item to its source and subsequent action) to best deal with marine litter.

Every year, the number of data collection projects such as clean ups and monitoring programmes increase. They are implemented globally either by volunteer groups or appropriate agencies to develop new insight on the amount, trend and distribution of marine litter. These efforts eventually lead to publishing results and figures that may vary considerably depending on location and duration of the clean up, prevailing weather conditions, methodology, time period between two consecutive clean ups, environmental area (beach, water column, seafloor, etc.), aggregation and statistical management of results, etc.

Results are published annually by various organizations such as the Ocean Conservancy International Coastal Cleanup and provide an overview of what is littering our oceans. These results are important in guiding our efforts towards preventing specific items from reaching the marine environment in the first place.

Every year, the International Coastal Cleanup coordinates a global cleanup and monitoring campaign. Annual global data reports are published at www.oceanconservancy.org.

Here are two diagrams of the top 10 lists of litter items recorded on beaches worldwide during the International Coastal Clean Up of 2012 (left) and 2013 (right). Learners can compare these top 10 lists to those from 10-20 years earlier and discuss the differences.
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