Upstream Battle
Citizen Science
Tackling Source to Sea Litter
You’ve just seen an image on the previous slide. What was in the picture?

Here it is again on the next slide. What do you see? What could this picture be trying to show?
This presentation covers:

1) All about Litter – what is it? And where does it come from?

2) Impacts of litter and why we need your help.

3) How you can help. Litter survey and Clean up Guide
All about Litter
Hello I’m Wido! What is litter? How would you describe it to an alien? I would call it ‘Rubbish that has not been disposed of properly.’
Some litter is found in the sea. This is called marine litter.
Did you know?

80% of all marine litter comes from land.
Hi I’m Barry.

Fill in the blank boxes.

Source to Sea pathway. How does litter get from land to sea?

Litter on land

Swept into water courses by rain and wind

Flows in streams, rivers and drains

To the sea
But wait! What is the problem with litter?
Impacts of Litter.
Why we need your help.
What problems with litter can you think of?

- It is *harmful to wildlife*
- It makes rivers and beaches messy and *unclean*.
- It is *expensive* to clean up.
- It’s a *BIG problem* - 12.7 million tonnes of plastic get into the sea each year. That is a truck full of litter every minute.

Here’s some that I know about
Well Pickle, the River Clyde is 109 miles long and the River Tay is 119 miles long. That could mean a lot of litter!
That's where YOU come in! Help us learn more about litter and stop it getting into the River Clyde or River Tay by joining the Upstream Battle and participating in a Litter Survey and Clean Up!
A short video about the Upstream Battle campaign:
River Clyde
https://youtu.be/DPqcuVgc7QQ
River Tay
https://youtu.be/b878Ue0NLQw
WHY do we want to learn about our litter?

1) We want to create a plan to stop the litter from happening.

2) We want law makers to make laws that keep litter out of rivers.

3) We want to know who is responsible for the litter.
WHAT do we want to learn about our litter?

1) Where it is getting into the river.

2) What type of litter is getting into the river.
How you can help.

Guide to a Litter Survey and Clean Up
Let’s get started!
Here’s your checklist for a successful Litter Survey & Clean Up

1) Pick a site to survey alongside a waterway
2) Plan when and how you will carry out your survey
3) Print out your survey sheets & study them beforehand
4) Carry out your Litter Survey
5) Clean up and collect litter from your site
6) Submit your results
7) Repeat your survey once every term (if possible)

Remember safety!
Picking your survey site

Your survey site needs to be...

- Next to a waterway
- Local
- Accessible
- Public land (private with permission)
- Litter hotspot (or not)
- SAFE!!

Hi, I’m Coco. Does this look like a good place to survey?
Plan your survey

Choose
• When you will do it

Before you go
• Make sure everyone going knows how to do the survey
• Do a risk assessment together
Getting ready to survey on site

• Choose a safe line.

• The safe line marks the closest you will get to the water during your survey.

• Make sure everyone knows where the safe line is.

Where is the safe line? DO NOT cross the safe line!
Where is the safe line?
SAFETY FIRST

Your safety is the most important thing when you’re out for your survey and Clean Up.

If you ever feel unsafe, find the nearest adult as soon as possible.

<table>
<thead>
<tr>
<th>AVOID</th>
<th>NEVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>X Wet, boggy or uneven ground</td>
<td>X Climb over fences</td>
</tr>
<tr>
<td>X Steep slopes or drops</td>
<td>X Lean over or towards the water</td>
</tr>
<tr>
<td>X Riverbanks with lots of bushes, brambles and plants</td>
<td>X Go off by yourself</td>
</tr>
</tbody>
</table>

DO NOT cross the safe line!!
Getting ready to survey on site

- Measure the **length** of your survey site. It needs to be 100 meters along the water’s edge.
- The **width** of your survey site will be different whether there is a walking path or not.
Carry out your litter survey

Count litter you can see in THREE different parts of your survey area

• Floating in the water
• On the river bank
• On the ground
To count floating litter

1. Stand in your survey site
2. Count litter floating past for one minute
3. Count litter only, not natural items like sticks or leaves
4. Record the total number
To count litter on the bank

1. Stand on your survey site so you can see up and down the riverbank

2. Give the riverbank a grade from A-E based on the amount of litter you see

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>No litter can be seen</td>
</tr>
<tr>
<td>B</td>
<td>A couple of small pieces</td>
</tr>
<tr>
<td>C</td>
<td>More small pieces or a couple of large pieces</td>
</tr>
<tr>
<td>D</td>
<td>Lots of small pieces and some large pieces</td>
</tr>
<tr>
<td>E</td>
<td>Most of the bank is covered in litter</td>
</tr>
</tbody>
</table>

Use the A-E grades here to help you.
To count litter on the ground

1. Walk slowly through your survey site
2. Identify each piece of litter by type and count each piece that you see
3. Record each piece on the survey sheet as you go, using tally marks e.g. $\text{lill} = 4$
4. Total up the tally marks for each type of litter

- You can work in pairs to do the survey and do a litter pick at the same time. This will help avoid double counting.
- You can divide your area into smaller sections if you have a group of people. Each pair will need a survey sheet to record what they find.
A word about nurdles

- If your survey area includes the mouth of the river, you might find nurdles.
- Nurdles are small, multi-coloured plastic beads that are melted down to make plastic objects. Sometimes nurdles spill into the sea from the cargo ships they are transported on.
- Nurdles absorb toxins from the ocean so they can be very harmful.
- Nurdles ARE NOT SAFE to touch. Please handle them only with gloves and/or tweezers.
Filling in the survey sheet

• Print and look over the survey sheet before the day of the survey to make sure you know what everything is.

• Fill in the information at the top of the sheet. It is important to say where your survey is happening.

• Do the tally marks and give totals for each litter type.
Filling in the survey sheet

There is a section called ‘other’. This is where you can record things like:

- Overflowing bins
- Wind blown litter
- Extreme weather events such as floods or storms
- Litter hotspots with a lot of litter
- Who is using this area
Cleaning up litter at your site

When picking up the litter at your site, remember:

• Wear protective gloves and/or use a litter picker
• Don’t pick up sharp objects
• Don’t pick up an object if you don’t know what it is
• Don’t pick up large or heavy objects
• Don’t pick up any litter that is beyond your safe line
After your survey

When you have finished your survey and Clean Up, submit your results to:
https://members.keepscotlandbeautiful.org/Account/Login?ReturnUrl=%2Fhome

Or email to upstreambattle@keepscotlandbeautiful.org

Repeat your survey and Clean Up again if you can!

Thanks for all your help! From Barry, Pickle, Wido, Chip, Coco and Fizz