

EFFECTS OF BEACH LITTER ON PEOPLE AND WILDLIFE

These websites contain much useful information:

www.mcsuk.org

www.adoptabeach.org.uk

www.goodbeachguide.co.uk

In 2004 Environment Minister, Elliot Morley, congratulated all concerned in the annual **Beachwatch** project (a beach survey involving collecting and analysing beach litter all over the UK, organised by the Marine Conservation Society):
"40 million people visit our beaches every year making them one of the nation's most prized assets. Litter left on the beach or washed up on shore is an eyesore and not only affects our tourist trade but can have fatal consequences for much of our marine life. So please take your rubbish back home with you and ensure that on your next visit it is only sand that squeezes through your toes and not something else!"

a) Some visitors to beaches leave litter behind, such as picnic rubbish. What do you think are the other sources of litter that accumulates on beaches?

i) _____

ii) _____

iii) _____

iv) _____

v) _____

SEVEN SISTERS COUNTRY PARK

At Seven Sisters Country Park, Cuckmere Haven beach is cleaned every few weeks by a group of staff and volunteers, wearing strong rubber gloves and with instructions not to touch full canisters, chemicals, syringes etc. Rubbish is bagged and then sorted into categories.

The results are sent to the Marine Conservation Society, via the Adopt-A-Beach Scheme. On June 25, 2006, the table on the next page shows the main items of litter found on a 100 metre stretch of beach:



Plastics: 12 plastic bags 29 plastic bottles 156 bottle caps/lids 26 pieces anglers fishing line 180 pieces of fishing net 31 fishing floats 29 pieces of crates 236 pieces of plastic 33 strapping bands 31 polystyrene objects	Rubber: 4 balloons 2 boots 105 rubber pieces 1 tyre	Paper: 2 paper bags 5 tetra pak cartons 1 newspaper 21 pieces of paper
Glass: 1 bottle 15 pieces of glass	Wood: 30 pieces	Cloth: 55 pieces
Metal: 17 bottle tops 12 drink cans 21 pieces of wire mesh	Sewage related: 2 cotton buds 2 panty liners	

On September 19, 2006 approximately 200 balloons were found tied together in a mass! They must have washed up overnight and were still mainly intact!

On 17 and 18 Sept, 2005 the 13th annual Beachwatch Litter Survey took place on 332 British beaches. In the British survey 350,000 items of litter were collected and analysed, giving the following results:

Assumed origin	Percent of items
Beach visitors	35.4
Fishing	14.6
Sewage related debris	7.2
Fly tipped	0.8
Medical	0.2
Non-sourced	39.6



b) Draw a pie chart to illustrate these figures.

c) How do the results from Seven Sisters Country Park differ from the Beachwatch averages? Can you suggest possible reasons?

d) Why do you think makes the beach at Cuckmere Haven rather different from other beaches which were surveyed in the Beachwatch Survey?

COMPARISONS WITH PREVIOUS YEARS

Unfortunately, according to the Beachwatch surveys, there has been an 89.6% increase in the density of beach litter on surveyed beaches from 1994 to 2005.



LITTER SURVEY

e) This is an exercise to study the amount of litter left on beaches compared with your school grounds or a local park. Try doing these surveys at different times of the year to see if there are any differences. Choose a 100 metre stretch of beach, and do the same in the school grounds. Work in pairs or groups. Walk along each designated area recording the litter using a tally chart.

f) Once you have completed your study areas, compare results and draw bar charts and line graphs. Compare the differences between the types of litter found and the amounts in each area.

It is important to understand why litter is so damaging for wildlife. Birds and animals get tangled and stuck when in search of food. Marine litter is a real threat to animals like dolphins and turtles; turtles often eat plastic bags, mistaking them for jellyfish, which can often cause them to starve to death. Dolphins and birds may also become entangled in fishing line or plastic strapping, causing them to drown or tangling around appendages, sometimes even amputating them.

When doing a survey, take care not to touch anything, and always use work gloves and/or litter pickers.

Related Questions.

- What are the differences between the amount of litter found in your school grounds and on the beach?
- What are the most common items found a) on the beach and b) in the school grounds?
- Why do you think these items are the most common?
- Do you think these items differ depending on the time of year?
- Why do you think people drop litter?
- Why is litter bad for wildlife?
- How would you try and prevent people from dropping litter?



Litter Survey - Types of Litter Found on the Beach (Use a Tally Chart)	School Grounds	Beach
Food Items		
Cans		
Bottles - glass		
Bottles - plastic		
Milk / juice container - plastic		
Milk / juice - carton		
Plastic drinks cups		
Paper cups		
Polystyrene cups /pieces		
Cup lids		
Plastic bags		
Cardboard pieces		
Disposable BBQ sets		
Containers - glass		
Containers - plastic		
Lids		
Food wrap - paper		
Food wrap - plastic		
Tin foil		
Condiment packaging - salt, ketchup, vinegar etc		
Crisp packets		
Ice cream wrappers / lolly sticks		
Cigarette, tobacco debris, lighters etc		
Printed material		
Paper		
Newspaper / magazines		
Pollutants		
Aerosol cans		
Paint pots		
Metals		
Car pieces		
Chemical containers DO NOT TOUCH		
Miscellaneous		
Rope		
Clothing		
Shoes		
Fishing line		
Fishing net		
Cotton buds		
Disposable nappies		
Other		



THE IMPACT OF LITTER ON PEOPLE AND ON WILDLIFE

Beach litter has a major impact. It can be very harmful to humans. It is estimated to kill over a million birds and 100,000 marine mammals and turtles in the world every year!

g) Working in small groups attempt to rank the following list of types of litter in terms of how harmful it is to (i) humans and (ii) wildlife. Rank the most harmful as 1, and the least harmful as 6. Expect the two sets of ranks to be different.

TYPE OF LITTER	HARM TO HUMANS	HARM TO WILDLIFE
Fishing net and lines		
Wooden planks		
Glass bottles		
Sewage		
Plastic bottles		
Plastic bags		

h) Write notes explaining your ranking for (i) humans and (ii) wildlife in terms of the potential damage and disease caused by the litter.

i) Be ready to report back to the class.

CLEAN UP COSTS

Local authorities have to pay over £14 million a year to clean up beach litter in England and Wales. Costs can be up to £50,000 per km. The litter has to be dumped in landfill sites, adding to the problem of waste disposal in the country. It is usually charged for by weight.

But these clean ups are really only a short term measure to reduce the amount. More litter will drift in from other beaches and other sources unless greater efforts are made to stem the ever increasing tide!

j) ASSIGNMENT:

Using the information from the Marine Conservation Society websites and literature, from your teacher and from other sources, write a newspaper article or make a detailed poster on the problems of marine litter.

If you live near the coast try to get involved in an Adopt-A-Beach Scheme.

