

Plastic Pollution



When people think about plastic, they may think of a range of everyday objects that serve to make our lives easier: containers in which to store food, toys and gadgets we play with and even the pipes that carry water to and from our homes. In fact, plastic is so popular in the UK today that it is almost impossible to imagine life without it.

However, while plastic makes human lives easier, it makes the lives of Britain's wildlife much harder and could be endangering the existence of some of our much-loved species.

Plastic Waste Facts

160,000 plastic bags are used around the world every second.



79% of plastic produced over the last 70 years has been thrown away.



By 2015, 6300 million metric tonnes of plastic waste had been created.

Plastic and the Environment

There are many different ways that plastic can enter the environment:

- not disposing of it properly, e.g. littering;
- washed down drains from face washes and clothing;
- spilled overboard by ships;
- escaped from factories and warehouses;
- blown out of bins or landfills by the wind;
- abandoned, e.g. fishing nets.

So much plastic enters the environment each year that it can be found in fresh water, soil, air and oceans around the world.



Of this:
9% recycled,
12% burned, 79% in landfills
or the natural environment.



Plastic Pollution

The Problem with Plastic

Although few forms of plastic can be classed as biodegradable – meaning that they will break down completely over time if exposed to the right conditions – most types of plastic are neither biodegradable nor compostable. Therefore, any plastic that ends up in the local environment will not break down over time, unlike paper, fruit peel or natural fabrics. They will simply remain indefinitely until they are removed by humans or mistakenly consumed by wildlife.

A huge problem with the plastic that ends up in the environment is the chemicals it releases. Over time, pieces of plastic litter will break into smaller pieces. When plastic breaks into tiny pieces, known as microplastics, it is consumed by wildlife that mistake it for food. Alarmingly, these microplastics contain toxic chemicals and heavy metals – poisonous and deadly to local wildlife. These make their way into the food chain, affecting not only the creature who ate the plastic but any animal that goes on to consume them.



'Female Mallard By Water With Rubbish' by Martin Kraatz

Threats to Wildlife

The largest threats to wildlife from plastic waste in the environment are:



- death or injury caused by becoming tangled in plastic waste, for example, birds becoming trapped in fishing nets or hedgehogs caught in plastic can holders;
- mistakenly eating plastic waste thinking that it is food, for example, birds eating plastic bags that float in a pond, mistaking them for fish;
- poisoning from the chemicals contained within the plastic which can lead to illness and death.



How We Can Help

The plastic problem we face today has not been created by one single place. It is a problem that has been created by every country and it is one which cannot be solved overnight. The key way to prevent any further harm to wildlife is by changing our attitude towards plastic. Some helpful tips are:

- Instead of using plastic items, such as straws and plastic bags, buy reusable items, e.g. Flasks for hot drinks and canvas shopping bags.
- Glitter (which is often made of plastic) and balloons can also be damaging to the environment and dangerous to animals, who may mistake them for food.
- Recycle as much of your waste as possible.
- Safely pick up litter you see in the environment.

Questions

1. **...they will simply remain indefinitely until removed by humans...**

Which of these is the most accurate definition for the word indefinitely? Tick one.

- globally problematic
- for the foreseeable future
- restricted from view
- negatively impactful

2. Match the sub-heading to the best summary of its contents.

Plastic and the Environment

A visual representation of facts and figures regarding plastic use and disposal.

Plastic Waste Statistics

An explanation of different ways plastic enters natural habitats.

Threats to Wildlife

An exploration of the damaging impact plastic pollution has on creatures and their habitats.

3. **...and could be endangering the existence of some of our much-loved species.**

Define the word **endangering** based on its use in this sentence.

4. What percentage of plastic produced over the last 70 years has been thrown away?

5. Which creature may birds mistake plastic bags for?

6. Fully explain how plastic pollution endangers Britain's wildlife.

7. Plastic pollution is a global problem. Propose three steps which could be taken globally to reduce plastic pollution.

8. Summarise what is meant by microplastics in 15 words or less.

9. Comment on one change you have already made and one change you will make in the future in order to reduce plastic pollution.

10. Summarise the purpose of this text and its intended audience.

Find the words in the word search and learn them. Use each word in a sentence of your own.

Spelling List Wordsearch

Double Consonant

p r o f e s s i o n c c
e s r x p t n x o t o q
m e t e j e a y n h r e
b f x f c w a e i y r s
a f c a z o i x h p e p
r t w h g c m n w e s e
r d y g i g e m o k p c
a b x f x w e j e v o i
s s f k k y i r v n n a
s u l a a p x o a e d l
s w v y b d m f k t i l
c o m m u n i c a t e y

embarrass
especially
correspond
communicate

profession
sufficient
exaggerate
recommend

Murder Mystery: Instructions

There has been a murder at the St George Castle Hotel. As the Detective Chief Inspector you are in charge of solving the crime.

So far, your officers have taken down the names and details of all the people in the hotel at the time of the murder. There are 32 names in total and the murderer is one of them.

Your officers have also found 5 clues to help you identify the murderer. As this is a top secret case each clue is in a different code. To crack the case you will need to solve each code and cross reference the information with the guest list.



Murder Mystery: Hotel Guest Information



Suspect Number	Name	M/F	Height	Hair Colour	Glasses	Hair Length
1	Jason Warren	M	Short	Dark	Y	Short
2	Rudy George	M	Short	Dark	Y	Long
3	Meredith Richards	F	Tall	Light	Y	Long
4	Thomas Butler	M	Short	Light	N	Long
5	Madeline Farmer	F	Tall	Light	N	Short
6	Don Craig	M	Tall	Dark	Y	Short
7	Rita Carr	F	Tall	Light	N	Long
8	Marguerite Stone	F	Short	Light	Y	Long
9	Sabrina Townsend	F	Short	Dark	N	Short
10	Mark Hall	M	Tall	Dark	N	Short
11	Erika Rogers	F	Tall	Light	N	Short
12	Elbert Brock	M	Short	Light	Y	Long
13	Lillie Gray	F	Tall	Light	N	Long
14	Freda Ballard	F	Short	Dark	Y	Long
15	Candice Mccoy	F	Tall	Dark	N	Short
16	Lionel Schultz	M	Tall	Dark	Y	Short
17	Owen Harrison	M	Short	Light	Y	Long
18	Ella Ray	F	Short	Light	N	Long
19	Eric Thomas	M	Short	Dark	N	Short
20	William Anderson	M	Tall	Dark	N	Long
21	Johnny Cox	M	Tall	Light	Y	Short
22	Shannon Stewart	F	Short	Light	Y	Short
23	Stephen Gray	M	Short	Dark	N	Long
24	Colin Turner	M	Short	Light	Y	Long
25	Glen Webb	M	Tall	Light	Y	Long
26	Scottie Kimmel	M	Tall	Light	N	Short
27	Jackson Steiner	M	Short	Dark	N	Short
28	Daisy Dennis	F	Tall	Dark	Y	Short
29	Allison Valdez	F	Tall	Light	N	Long
30	Regina Cummings	F	Short	Dark	N	Short
31	Alice Watson	F	Tall	Dark	Y	Long
32	Gary Thompson	M	Short	Dark	Y	Short

Murder Mystery: Clue 1

Use the table below to find out the clue.
You will have to unscramble them to make a sentence.



	A	B	C	D
1	long	road	hotel	dog
2	apples	victim	hairs	had
3	drink	were	in	without
4	knife	along	found	poison
5	on	sitting	once	purse
6	watch	on	garden	the
7	time	found	rope	on
8	the	amongst	she	hidden
9	his	victim's	head	table
10	bench	heated	clothing	bedroom

C4 _____

C10 _____

D6 _____

B6 _____

A1 _____

B9 _____

B3 _____

C2 _____

Clue: _____

Murder Mystery: Clue 2



Below is a coded message. Each letter from the message has been replaced with a new letter. The first four have been done for you .

A	<u>J</u>	H	—	O	—	V	—
B	<u>K</u>	I	—	P	—	W	—
C	<u>L</u>	J	—	Q	—	X	—
D	<u>M</u>	K	—	R	—	Y	—
E	—	L	—	S	—	Z	—
F	—	M	—	T	—		
G	—	N	—	U	—		

KYV GVIJFE JVVE CVRMZEX KYV

DLIUVI JTVEV YRU URIB YRZI

Clue: _____

Murder Mystery: Clue 3

Use the grid and coordinates below to find out the message.



5	A	F	K	P	U	
4	B	G	L	Q	V	
3	C	H	M	R	W	
2	D	I	N	S	Y	
1	E	J	O	T	Z	
0						
	0	1	2	3	4	5

(1,5) / (4,2)(2,3)(3,1)(4,3)(4,1) / (4,5)(1,1)(4,3)(4,2)(3,1)(3,2) /

(5,3)(1,5)(4,2) / (4,2)(1,1)(1,1)(3,2) / (3,4)(1,1)(1,5)(5,4)(2,2)(3,2)(2,4) /

(4,1)(2,3)(1,1) / (3,3)(5,5)(4,3)(1,2)(1,1)(4,3) /

(4,2)(1,3)(1,1)(3,2)(1,1) /

Clue: _____

Murder Mystery: Clue 4

The message is in code!
Can you work out how to read it?



C E N E
I M E S
H E C R
D A T T
E H I N
S E S B
G L A S
H E I R
E F T T
R E R L
U R D E
T H E M

Clue: _____

Murder Mystery: Clue 5



The message is in morse code! Can you work out the message? You will have to unscramble the sentence.

A	• —	J	• — — —	S	• • •
B	— • • •	K	— • —	T	—
C	— • — •	L	• — • •	U	• • —
D	— • •	M	— —	V	• • • —
E	•	N	— •	W	• — —
F	• • — •	O	— — —	X	— • • —
G	— — •	P	• — — •	Y	— • — —
H	• • • •	Q	— — • —	Z	— — • •
I	• •	R	• — •		

•••• / •— / •••

•—•• / •— / •—• / ——• / •

— / ••— / •—• / —•• / • / •—• / • / •—•

— / •••• / •

— / — — / •— / •• / — / •— / —••• / ••• / •

•— /

Clue: _____

The Lighthouse

The activities in this pack are designed to use with the following clip...

<https://www.literacyshed.com/the-lighthouse.html>

Keep Yours Eyes Open

Watch the clip. How many of these things can you spot. Tick them when you see them. You might need to watch the clip more than once.

houses	candle	lighthouse	chair
lantern	glasses	machinery	ship
toolkit	steps	window	rocks
glass	village	handle	hat
scarf	moon	books	waves



The Lighthouse

A diamante poem has 7 lines:

Tiger
Orange, Black
Purring, Pouncing, Growling
Teeth, Tail, Trees, Leaves
Rustling, Creaking, Groaning
Dense, Dark
Jungle

It follows this pattern...

noun 1 (the name of a thing)
adjective, adjective (describing noun 1)
verb, verb, verb, (actions linked to noun 1)
noun, noun (to do with noun 1), **noun, noun** (to do with noun 2)
verb, verb, verb (actions linked to noun 2)
adjective, adjective (describing noun 2)
noun 2 (the name of a thing)

Can you create a diamante poem for the lighthouse and the sea? Use the ideas below to help you and create your poem on the next page.

Lighthouse: tall, bold, bright, magnificent, huge, lonely, solitary, remote, striped, guiding, shining, standing, looming, glowing, illuminating, warning, leading, directing, light, tower, lamp, lens, steps, rocks, coast.

Sea: choppy, angry, deep, dangerous, turbulent, restless, grey, wild, mighty, cold, raging, surging, swaying, crashing, rushing, engulfing, swallowing, rolling, sweeping, wave, crest, boat, water, breaker, surf, foam.

Diamante Poem

Now create your diamante poem by using the word on the previous page (or your own) and filling the blank spaces.

Lighthouse

_____ / _____

_____ / _____ / _____

_____ / _____ / _____ / _____

_____ / _____ / _____

_____ / _____

Sea

Extension

Choose one of the following activities:

- Write a newspaper report about the event. Include interviews with the lighthouse keeper, villagers and men from the boat.
- Write a description of the lighthouse on the rocks.
- Research the history of lighthouses. Write a report about what you found out.

A

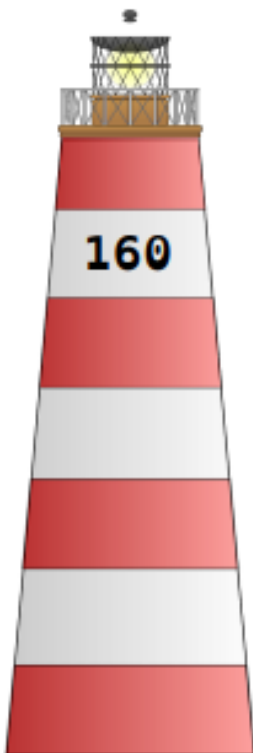


With each 'step' up the lighthouse, the number doubles. Can you fill all of the spaces?

B



C



D

