

Plastic bag charge: shoppers in England must pay 5p

Name _____ Date _____

From today, shoppers in England will be charged 5p for every plastic bag given out at supermarkets and large stores. It is hoped the levy will cut the 7.6bn bags given to shoppers at major supermarkets every year, and retailers are expected to spend the money raised from the charge on good causes.

England is the last part of the UK to start charging for plastic bags. The number of plastic bags given out by seven major supermarkets in England rose by 200 million in 2014 to exceed 7.6 billion - the equivalent of 140 per person and amounting to 61,000 tonnes in total.



What do people think?

The government hopes the English scheme will cut use of plastic carrier bags by up to 80% in supermarkets, and by 50% on the High Street. It also expects to save £60m in litter clean-up costs as well as generating £730m for good causes over the next decade.

Exemptions

The price hike affects only retailers with 250 or more employees, and unlike schemes in other parts of the UK, paper bags are exempt from a charge. Smaller shops are exempt from the rule change but may choose to charge shoppers for bags as well. Campaigners have welcomed the move, but called for the law to include all retailers and all types of bags.

What is being done elsewhere?

In 2011, Wales started charging 5p per bag and use by customers has dropped 71%. Scotland and Northern Ireland introduced their charges in 2014 and 2013 respectively and have also seen significant drops in usage.

In 2002, Bangladesh became the first country in the world to ban thinner plastic bags altogether, after they were found to have choked local drainage systems during floods.

Number of carrier bags (millions)	http://www.wrap.org.uk/					
	2010	2011	2012	2013	2014	2010/2014 change
UK	7,568	7,977	8,079	8,335	8,529	12.7%
England	6,287	6,760	7,061	7,402	7,635	21.4%
Scotland	725	753	761	803	656	-12.8%
Wales	351	273	62	73	77	-78.2%
Northern Ireland	173	188	193	57	33	-81.2%

Sources:




<http://www.bbc.co.uk/news/business-34438030> (October 5th, 2015) and http://www.wrap.org.uk/2015_carrier_bag_figures

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Use the information on page 1 to answer the questions.

For these questions , you **must** show your working out.

1. What date did this charge come into effect? Write your answer numerically.
2. How long ago did Bangladesh ban thin plastic bags?
3. What was the percentage drop in consumption in Scotland from 2010 – 2014?
4. i) What percentage of £1 is 5 pence? ii) What is this as a fraction? (Simplify your answer). 
5. Use the mean to calculate how much will be raised for good causes in **one** year. 
6. If an 'average' person continues to use bags how much will they pay per year? 
7. Write £60m in numbers only.
8. Draw a bar chart to represent some of the information in Table 1.
You **must** give your chart an appropriate title and label the axes correctly.
9. Write 7.6 billion in numbers only.
10. Explain why there was a drop in consumption in Northern Ireland in 2013.
11. What has started to happen in Wales since the charge was introduced?
12. Round 8,529 million to i) nearest 10 million ii) nearest billion.

Answers and teaching notes

Plastic bag charge

Approximate levels

Q1-3 E2-E3

Q4-7 L1

Q8-10 L1-2

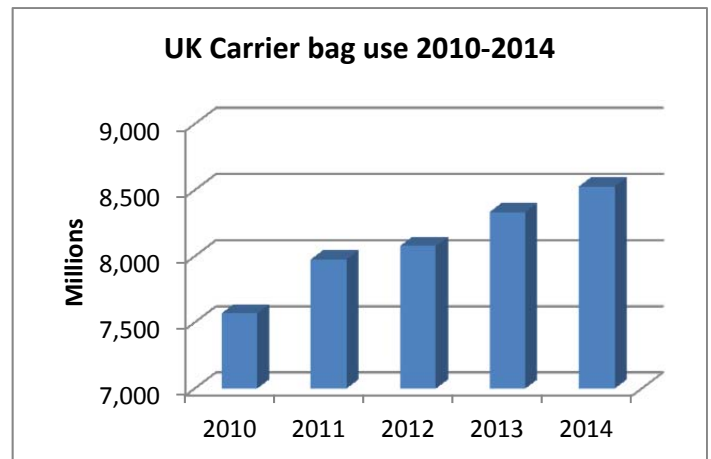
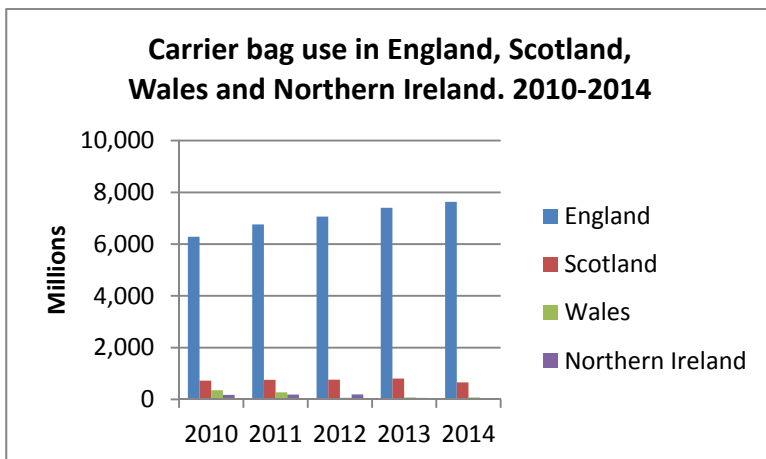
Q11-12 L2

Raw data for the bar chart at http://www.wrap.org.uk/2015_carrier_bag_figures (note that in this resource the figures have been converted from billions to millions).

L1 learners can draw single bar charts. For example just one country such as England, or totals for the entire UK (top row). L2 learners can draw multiple bar charts in Excel or similar.

Answers.

1. What date did this charge came into effect? Write your answer numerically.
5/10/2015 (from date given in 'sources')
2. How long ago did Bangladesh ban thin plastic bags?
Current year - 2002. E.g. 2015 - 2002 = 13 years.
3. What was the percentage drop in consumption in Scotland from 2010 – 2014?
-12.8% (from table)
4. What percentage of £1 is 5 pence?
i. $5/100 = 5\%$ ii. $5\% = 5/100 = 1/20$.
5. Use the mean to calculate how much will be raised for good causes in **one** year.
Decade = 10 years. $£730m \div 10 = £7.3m$.
6. If an 'average' person continues to use bags how much will they pay per year?
 $140 \times 5p = 700p = £7$
7. Write £60m as a number. **£60,000,000**
8. Draw a bar chart to represent some of the information in Table 1. You must give your chart an appropriate title and label the axes correctly. See notes above. Two examples here:



9. Write 7.6 billion as a number. **7,600,000,000**
10. Explain why there was a drop in consumption in Northern Ireland in 2013.
In 2013 NI introduced charges for carrier bags.
11. What has started to happen in Wales since the charge was first introduced?
There was a big drop in 2012 (the year after charges were introduced). Numbers increased slightly in 2013 and again in 2014, but are still much lower than when bags were free.
12. Round 8,529 million to i) nearest 10 million ii) nearest billion.
i) 8,530 million or 8,530,000,000 ii) 9 billion or 9,000,000,000