



# INVESTIGATION



Penny sweets



# MathSphere

## Penny Sweets Investigation

### Starter



lolly  
1p



toffee  
1p



ice-cream  
2p



I've got 6p to spend at the sweet shop.  
What could I buy?  
My mum says I've got to spend it all!

**What can you buy for 6p ?**

**You could buy 6 lollies, or you could buy 6 sweets.**

**What else could you buy?**

**Draw a table to show all the possibilities.**

## **Some Ideas**

**Work in a methodical way, recording your results carefully as you go.**

**Make up a table or use the one on the next page to help you.**

**Try to find all the possible answers.**

**How do you know you have all the possible answers?**

**What would happen if you only had 5p?**

**What would happen if you had 7p to spend?**

**What would happen if you could also buy a gob-stopper for 1p?**

**Make up your own shop with prices and see what you could buy with different amounts.**




[illegible]

## Answer Guide

Here are some possible answers and notes for guidance.

Some coins and small sweets would be helpful in this investigation, which can be carried out by quite young children, year  $\frac{1}{2}$ .

Introduce the investigation as a whole class activity - perhaps ask the children which they would like to buy. Begin a class table of results, showing how to work in a logical order, perhaps using the table above as an OHP.

 <b>Lolly 1p</b>	 <b>Sweet 1p</b>	 <b>Ice cream 2p</b>
6	0	0
5	1	0
4	2	0
4	0	1
3	3	0
3	1	1
2	4	0
2	2	1
2	0	2
1	5	0
1	3	1
1	1	2
0	6	0
0	4	1
0	2	2
0	0	3

This activity can be extended in many ways.

Encourage the children to ask, "What if...?" type questions to lead them on further such as:

What if I did not spend all the money?

What if there was an extra item to buy, for 1p?

What if I only had 5p?

What if I had 7p..or more?

What if one sweet cost 3p?

Etc.