<table>
<tr>
<td>Scientist Lesley Park 2-1-99
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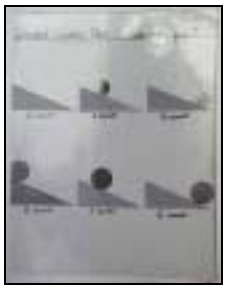
(diagram of "timelapse" for 10g and 50g balls rolling down the ramp.)

(on poster board two ramps with two different balls at 0 seconds)

(2 overlays, one for balls at 3 seconds and one for balls at 6 seconds)</td>
<td>  </td>
<td>On this page we begin to learn how much time it takes for each ball to go down the ramp. Here we see both balls at the starting line. How do I know that they have not started down the ramp? They are both at the starting line. Why do you think that it says "0 seconds here"? No time has gone by in the test.
[next foldout]
How much time has gone by now? How can we describe where the two balls are now?
From these pictures, what predictions can you make about what you will see when twice as much time has gone by?
What do you think will happen to the large and small balls? How much time do you think it will take for the large ball to get to the bottom of the ramp?
How much time do you think it will take for the small ball to get to the bottom of the ramp? What are you thinking about in order to answer these questions?
[next foldout]
How much time has gone by now? Where are the two balls? [almost at the bottom]</td>
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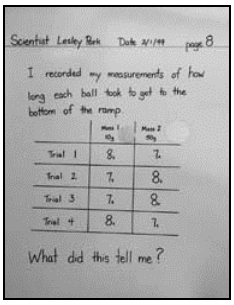
I recorded my measurements of how long each ball took to get to the bottom of the ramp.

Mass 1 10g Mass 2 50g
Trial 1 8s 7s
Trial 2 7s 8s
Trial 3 7s 8s
Trial 4 8s 7s</td>
<td>  </td>
<td>Remember that we said that Lesley had better write down the information she is gathering while she does her investigation so that she doesn't forget? On this page we see a table that Lesley has kept to record this information… we call this information her data. Let's see if we can figure out the data that Lesley has collected and what these data tell us about our question.

Let's remind ourselves what the question is that Lesley is investigating? Will something heavy and something light always get to the bottom of a hill in the same amount of time?

Engage the children in labeling the parts of the table: Each time that Lesley rolls the ball down the ramp is a different trial. How many trials has she run? How many balls has she tested? The numbers that are inside the table tell us how long it took for the ball to get to the bottom of the ramp. The s stands for seconds. Let s look just at Trial 1: How many seconds did it take for the little ball to go down the ramp? How many seconds did it take for the big ball to go down the ramp?</td>
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		[Proceed through the table. Ask the children what they notice about the times it took for each ball. Their noticing should include the fact that the little ball didn t always take the same amount of time] **The big ball also didn t take the same amount of time each trial. Why might that be the case?** ***Do the children think that the ball traveled differently each time? Is it possible that the ball traveled the same but that Lesley didn't quite stop the clock at the right time each time?*** **What can we say from these data about the time it takes for a big ball and a small ball to travel down a ramp?** ***Stop to collect the children's thinking about this…*** **Well, let's see what Lesley thought…**