

Please note – These are extracts from one student’s response

Purpose: to show that potato sticks placed in different sugar solutions will have a change in mass.

Hypothesis: the potato sticks left in distilled water will change in mass because of osmosis

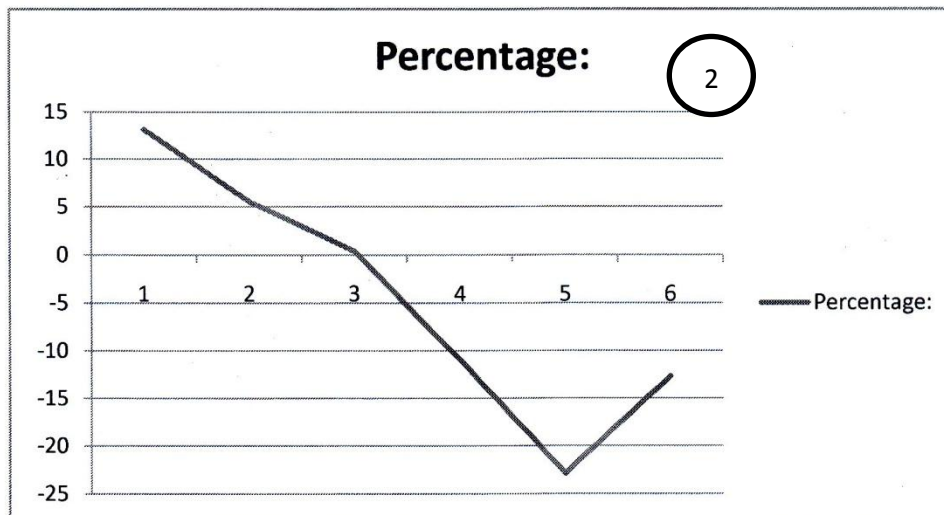
1

Solution	Distilled water	0.1	0.3	0.5	0.7	0.9
Starting weight:						
Test A: (Red)	2.71	2.73	2.88	2.77	2.69	2.72
Test B: (White)	2.73	2.68	2.72	2.49	2.67	2.73
Test C: (Black)	2.32	2.72	2.7	2.73	2.78	2.83
Carrot:	2.17	2.28	2.49	2.43	2.5	2.29
Average:	2.59	2.71	2.76	2.66	2.71	2.29

2

Solution	Distilled water	0.1	0.3	0.5	0.7	0.9
Ending weight:						
Test A: (Red)	2.97	2.88	2.96	2.53	2.03	1.99
Test B (White):	3.08	2.86	2.72	2.28	2.03	1.98
Test C: (Black)	2.74	2.84	2.65	2.31	2.21	2.04
Carrot:	2.25	2.54	2.55	2.41	2.27	1.89
Average:	2.93	2.86	2.77	2.37	2.09	2
Percentage:	13.12741313	5.535055	0.369004	-10.9023	-22.8782	-12.6638

Table of results for weight change in potatoes



2

From my experiment I can conclude that potato sticks placed in different sugar solutions had a change in mass. The potato sticks left in distilled water gained mass because of osmosis (13.1%); therefore I have carried out my purpose and proved my hypothesis to be correct.

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The other source from the teacher also supports my findings and my conclusion, but has much larger percentage changes. This may be because the potato sticks were left longer in the sugar solutions or were another brand or aged potato. The chips in their distilled water gained the most - 16%.

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