

Appendix K
TOSRA – Attitude toward Science Inquiry

2004-2005						2005-2006					
Questions						Questions					
3	10	17	24	31	Ave	3	10	17	24	31	Ave
2	2	4	4	3	3.0	5	4	4	4	2	3.8
2	2	2	2	2	2.0	2	2	2	3	2	2.2
2	2	4	2	2	2.4	4	4	4	4	3	3.8
2	3	3	3	3	2.8	2	2	4	5	2	3.0
1	3	4	3	4	3.0	4	4	2	5	2	3.4
4	4	3	4	4	3.8	4	5	4	2	4	3.8
4	2	4	2	4	3.2	4	4	3	3	3	3.4
4	2	4	3	4	3.4	4	3	3	3	3	3.2
2	4	4	3	3	3.2	3	4	2	5	4	3.6
2	2	4	2	4	2.8	5	5	5	4	5	4.8
4	4	4	4	2	3.6	4	4	4	4	4	4.0
1	1	4	5	3	2.8	4	2	5	3	3	3.4
2	2	4	4	3	3.0	4	4	4	3	3	3.6
2	3	4	2	4	3.0	2	4	3	3	3	3.0
2	4	4	2	3	3.0	4	3	4	2	2	3.0
2	2	4	3	3	2.8	4	4	4	3	3	3.6
1	2	2	3	4	2.4	2	3	2	5	1	2.6
2	4	4	1	2	2.6	5	5	5	4	4	4.6
4	2	4	4	4	3.6	3	5	5	4	2	3.8
2	2	4	2	4	2.8	5	5	5	4	3	4.4
3	1	4	4	2	2.8	4	5	5	5	2	4.2
4	4	4	5	4	4.2	5	5	5	5	2	4.4
2	2	2	3	2	2.2	5	5	5	5	5	5.0
1	2	4	4	3	2.8	4	4	4	4	4	4.0
5	5	4	4	5	4.6	2	4	3	4	2	3.0
5	5	5	4	4	4.6	4	4	4	4	4	4.0
4	5	5	5	5	4.8	2	2	4	4	2	2.8
4	4	4	1	4	3.4	4	4	4	4	2	3.6
2	1	3	1	3	2.0	5	2	5	4	4	4.0
4	3	4	3	3	3.4	2	4	4	4	4	3.6
4	4	4	2	3	3.4	4	3	4	2	2	3.0
1	1	1	1	1	1.0	4	1	3	4	4	3.2
4	4	4	3	4	3.8	2	2	2	5	2	2.6
2	4	2	4	4	3.2	5	4	4	4	2	3.8
4	5	4	4	4	4.2	2	4	3	4	3	3.2
1	2	3	4	2	2.4	5	5	5	5	5	5.0
5	3	2	4	5	3.8	5	5	4	4	4	4.4
3	3	3	3	3	3.0	4	4	4	4	3	3.8
4	4	5	4	4	4.2	2	2	1	3	1	1.8
2	4	4	4	4	3.6	3	4	2	3	2	2.8

TOSRA – Enjoyment of Science Lessons

2004-2005						2005-2006						
Questions						Questions						
5	12	19	26	33	Ave	5	12	19	26	33	Ave	
4	1	4	3	3	3.0	3	4	2	4	4	3.4	
4	1	4	3	2	2.8	3	4	2	4	4	3.4	
4	2	3	1	4	2.8	3	4	2	3	2	2.8	
4	3	3	3	3	3.2	3	3	2	3	3	2.8	
4	2	4	2	3	3.0	2	1	1	1	1	1.2	
4	3	3	3	4	3.4	4	4	4	4	5	4.2	
4	4	4	3	3	3.6	3	2	1	2	1	1.8	
4	4	4	2	3	3.4	3	3	3	3	3	3.0	
5	2	2	2	4	3.0	4	3	1	3	2	2.6	
4	3	3	2	3	3.0	3	3	3	3	4	3.2	
4	4	4	3	4	3.8	3	4	3	3	4	3.4	
4	3	3	1	3	2.8	4	2	3	1	1	2.2	
4	4	4	2	4	3.6	4	4	3	3	4	3.6	
5	5	5	5	5	5.0	4	4	4	4	4	4.0	
5	4	4	4	5	4.4	2	2	1	3	2	2.0	
5	2	4	4	5	4.0	3	4	2	4	4	3.4	
4	4	4	4	4	4.0	3	3	2	2	3	2.6	
4	4	3	2	3	3.2	4	4	4	4	4	4.0	
4	2	4	2	2	2.8	2	3	2	2	3	2.4	
4	3	4	3	2	3.2	3	2	3	2	5	3.0	
5	4	4	4	4	4.2	3	4	2	3	4	3.2	
5	4	5	4	5	4.6	3	3	3	2	4	3.0	
2	2	2	2	2	2.0	4	5	5	1	5	4.0	
2	1	2	3	1	1.8	4	4	3	4	5	4.0	
3	2	3	2	4	2.8	4	4	3	4	4	3.8	
4	4	4	4	5	4.2	4	4	2	3	3	3.2	
4	2	2	4	4	3.2	3	3	3	3	2	2.8	
5	5	4	5	5	4.8	3	3	4	4	4	3.6	
4	1	3	2	1	2.2	3	1	3	2	3	2.4	
4	3	3	3	3	3.2	2	2	3	2	2	2.2	
5	1	5	4	5	4.0	3	2	2	2	2	2.2	
1	1	1	1	1	1.0	3	4	2	4	2	3.0	
4	5	4	4	4	4.2	4	3	2	3	3	3.0	
5	4	4	4	4	4.2	4	4	2	4	4	3.6	
4	4	4	4	4	4.0	4	4	2	4	2	3.2	
4	1	4	4	2	3.0	3	4	3	4	5	3.8	
4	2	2	5	4	3.4	4	4	4	4	4	4.0	
1	1	3	3	3	2.2	3	3	3	3	4	3.2	
5	4	4	4	4	4.2	1	2	1	1	1	1.2	
4	3	4	2	2	3.0	3	2	3	3	3	2.8	
4	2	4	3	2	3.0	4	4	4	4	5	4.2	

