

Contents

150 000 Book credits	6
Introduction	9
Foreword	11
Experimental design studio	13
Distant collaboration	14
A Tower of 150 000 PET bottles	14
What is a PET bottle	17
A very brief history of plastics	19
How PET bottle is made	21
Design of PET bottles	22
Carlsbad Mineral Waters	24
Mattoni PET bottle	25
Experiments	27
Material investigation	28
Horizontal tests on PET bottles	29
Vertical test on PET bottles	30
Shear loads in the cap area	32
Pull forces on the cap	33
Glueing of PET bottles	34
Melting PET bottles	36
CO ₂ pressure technique	36
MOSTICK	38
References	41
Wet building	42
Light structures	52
Art or architecture	68
Student works	74
Tower designs	82
Conclusion	110
Bibliography	116