Contents

Foreword	xi
Preface	xiii
1. The Original Publication	xiii
2. The Subjects	xvi
3. The New Publication	xviii
1. General	1
Sensitive Periods	6
The Pre-Elementary Period (Early Childhood)	9
Geometry in the Children's House	9
Plane Geometric Shapes	9
Decorative Geometric Drawings	16
Differential Study of Outlines	21
Framing the Sheet	23
Frames and Decorations	23
Elementary Determinations	26
Lines and Angles	26
Shapes – The Triangle	29
A Return to the Plane Insets	36
Decorations	38
The Square	40
Construction of the Square	40
The Rectangle	41
The Rhombus	41
Construction of the Rhombus	42
The Parallelogram	42
Construction of the Parallelogram	42
Parallel Sides	43
The Isosceles Trapezium	46
Construction of the Isosceles Trapezium	47
The Rectangular Trapezium	48
Construction of the Rectangular Trapezium	48
The Circle	49
Shapes of Decorations	50
A CONTRACTOR OF THE CONTRACTOR	,

H	Iexagon		51
	Construction	ı of the Regular Hexagon	51
P	olygons		52
T	he Words		52
2. In	ntroduction	to the Elementary Period	55
A	dvanced Geo	ometry Material for Elementary Schools	58
S	tudy of Lines	– Definitions	67
`	Triangle		67
	Construction	n of the Bisector	70
	How to Use	a Compass to Find the Centre of a Line	72
S	tudy of Lines	- Definitions	73
	Square		73
T	he Words		75
3. C	ompariso	n of Shapes	77
T	he Square		77
	Construction	n of Equivalent Shapes	86
	Problems ar	nd Theorems	89
4. T	he Equilat	eral triangle	99
P	roblems		101
	Problem 1		102
	Problem 2		102
	Problem 3		103
	Problem 4		103
	Problem 5		104
T	riangles in th	ne Circle	105
T	he Triangle I	Divided into Three Parts	107
T	he New Equi	lateral Triangle	112
T	he Frames		116
A	nalogous Th	eorems	122

5. The Circle	127
The Material	130
Angles in Shapes	139
Decorative Drawings	164
Fractions	165
Fractions of Fractions	174
Control of Error	175
Decimal Numbers	177
6. Application of Equivalences	181
The Surface Area – Practical Applications	181
The Triangle	185
The Rhombus	187
The Isosceles Trapezium	189
Area of Polygons	192
The Area of the Circle	195
7. Reasoning	199
Reasoning on Angles - Shapes	200
The Right-Angled Triangle	202
Further Reasoning on the Right Angle	205
Squaring the Circle	211
Reasoning on Right-Angled Triangles	213
First Demonstration: Triangle with Two Equal Catheti	214
Second Demonstration	216
Third Demonstration: General	218
On the Demonstration	221