Table 4.

Correlations between test measures

	Spatial Measures				Mathematics Measures				BPVS
	2	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1. Disembedding	**.29**	**.45**	**.44**	**.35**	**.36**	.09	**.47**	**.43**	**.38**
2. Mental Rotation	/	**.46**	**.39**	**.33**	**.44**	-.079	**.33**	.17	**.49**
3. Spatial Scaling		/	**.52**	**.52**	**.59**	.31*	**.52**	**.51**	**.59**
4. Perspective			/	**.30**	**.43**	-.01	**.40**	**.31**	**.45**
5. NFER PiM				/	**.37**	.10	**.35**	**.34**	**.52**
6. ANS Task					/	.14	**.40**	**.25**	**.46**
7. No. Line 10 R^2_{LIN} (n = 48)						/	**.54**	.42	**.09**
8. No. Line 100 R^2_{LIN} (n = 136)							/	**.37**	**.47**
9. No. Line 1000 R^2_{LIN} (n = 108)								/	**.41**
10. BPVS									/

Bold indicates $p < .001$, * indicates $p < .05$. Unless otherwise stated N=155 and percentage accuracy scores are reported. *NFER,* National Foundation for Educational Research, *ANS*, Approximate Number System, R^2_{LIN}, linear response pattern, *BPVS*, British Picture Vocabulary Scale

Table 5.

Regression Model 1: Factors predicting standardised mathematics achievement (NFER PiM) (N =155)

Model 1	**b**	***SE***	***ß***	***t***	**p**	***F***	***df***	***p***	***Adj. R^2***	***Δ Adj.R^2***
Step 1										
Age (months)	-6.90	1.41	-0.46	-4.88	< .001	31.28	152	< .001	.282	
BPVS	7.32	1.30	0.49	5.62	< .001					
Step 2										
Disembedding	3.10	1.13	0.21	2.75	.007	18.58	148	< .001	.406	.124
Mental Rotation	0.25	1.10	0.02	0.22	.824					
Spatial Scaling	5.13	1.26	0.34	4.06	< .001					
Perspective Taking	0.77	1.20	0.05	0.64	.523					
Step 3										
Mental Rotation*Age	-2.26	0.92	-0.16	-2.45	.015	17.32	147	< .001	.426	.02

Follow Up: Younger Group	**b**	***SE***	***ß***	***t***	**P**	***F***	***df***	***p***	***Adj. R^2***	***Δ Adj.R^2***
Step 1										
Age (months)	2.40	3.36	0.07	0.71	.478	22.42	58	< .001	.417	
BPVS	7.29	1.83	0.38	3.99	< .001					
Step 2										
Disembedding	4.45	1.87	0.22	2.37	.021	15.40	54	< .001	.590	.173
Mental Rotation	3.07	1.59	0.20	1.93	.058					
Spatial Scaling	4.56	1.70	0.27	2.68	.010					
Perspective Taking	-1.61	1.77	-0.08	-0.91	.369					

Follow Up: Older Group	**b**	***SE***	***ß***	***t***	**p**	***F***	***df***	***p***	***Adj. R^2***	***Δ Adj.R^2***
Step 1										
Age (months)	-5.47	2.41	-0.22	-2.26	.026	14.28	91	< .001	.222	
BPVS	7.19	1.72	0.41	4.19	< .001					
Step 2										
Disembedding	3.03	1.41	0.19	2.15	.034	9.78	87	< .001	.403	.181
Mental Rotation	-2.40	1.62	-0.13	-1.48	.142					
Spatial Scaling	5.19	1.72	0.30	3.01	.003					
Perspective Taking	2.08	1.59	0.14	1.31	.194					

Table 6.

Regression Model 2: Factors predicting ANS performance (N = 155)

Model 2	b	*SE*	*ß*	*t*	p	*F*	*df*	*p*	R^2	ΔR^2
Step 1										
Age (months)	2.56	0.83	0.29	3.08	.002	37.16	152	< .001	.320	
BPVS	0.03	0.78	0.00	0.04	.969					
Step 2										
Disembedding	-0.09	0.68	-0.01	-0.13	.893	18.37	148	< .001	.404	.084
Mental Rotation	0.74	0.66	0.08	1.11	.267					
Spatial Scaling	3.11	0.76	0.35	4.12	< .001					
Perspective Taking	0.55	0.69	0.06	0.79	.429					

Table 7.

Regression Model 3: Factors predicting* R^2_{LIN} scores *on the 0-10 Number Line Estimation Task (n = 48)

Model 3	b	*SE*	*ß*	*t*	p	*F*	*df*	*p*	R^2
Step 1									
Disembedding	0.00	0.03	0.02	0.12	.902	2.70	43	.043	.126
Mental Rotation	-0.05	0.02	-0.36	-2.20	.033				
Spatial Scaling	0.08	0.03	0.55	3.11	.003				
Perspective Taking	-0.03	0.03	-0.20	-1.34	.188				

Table 8.

Regression Model 4: Factors predicting* R^2_{LIN} scores *on the 0-100 Number Line Estimation Task (n = 136)

Model 4	b	*SE*	*ß*	*t*	p	*F*	*df*	*p*	R^2	ΔR^2
Step 1										
Age (months)	0.04	0.02	0.19	1.94	.054	23.08	132	<.001	.329	
BPVS	0.03	0.02	0.15	1.65	.101					
Gender	-0.05	0.03	-0.13	-1.93	.056					
Step 2										
Disembedding	0.03	0.02	0.19	2.29	.023	13.05	128	<.001	.385	.056
Mental Rotation	0.00	0.01	0.02	0.22	.825					
Spatial Scaling	0.04	0.02	0.23	2.52	.013					
Perspective Taking	0.00	0.02	0.01	0.17	.867					

Table 9.

Regression Model 5: Factors predicting **R^2_{LIN} scores** ***on the 0-1000 Number Line Estimation Task (n =108)***

Model 5	b	*SE*	*ß*	*t*	p	*F*	*df*	*p*	R^2	ΔR^2
Step 1										
Age (months)	0.10	0.03	0.30	3.10	.002	15.08	104	<.001	.283	
BPVS	0.05	0.03	0.18	2.02	.046					
Gender	-0.08	0.04	-0.15	-2.08	.040					
Step 2										
Disembedding	0.07	0.03	0.25	2.59	.011	9.93	100	<.001	.369	.086
Mental Rotation	-0.02	0.02	-0.06	-0.77	.441					
Spatial Scaling	0.09	0.03	0.33	3.52	< .001					
Perspective Taking	0.01	0.02	0.04	0.50	.616					
Step 3										
Scaling*Age	-0.09	0.03	-0.27	-2.99	.004	11.32	99	<.001	.435	.066
Step 4										
Disembedding*Age	-0.06	0.03	-0.21	-2.31	.023	11.09	98	<.001	.459	.024

Note: For all regression models, *b* represents unstandardized coefficient, *SE* represents Standard Error, *β* represents standardised coefficient, *ANS,* Approximate Number Sense, *NFER PiM,* National Foundation for Educational Research, *BPVS*, British Picture Vocabulary Scale