

### Table B.1 Hong Kong: Average Percentage Scores on Items by Task\* - Eighth Grade

Pulse Task	Overall	lter	m 1	Item 2	Item 3	]		
	Task	Measur	e Pulse	Describe	Explain			
	Average <sup>▼</sup>	Presentation	Data Quality	Trend	Results			
	54 (3.3)	55 (6.0)	51 (5.7)	76 (4.1)	34 (3.8)			
_								
Magnet Task	Overall	Item 1	Item 2					
	Task	Identify Magnet	Describe					
	Average▼	Identity Magnet	Strategy					
	88 (3.5)	94 (2.7)	82 (5.1)					
,						1		
Batteries	Overall	Item 1	Item 2	Item 3	Item 4			
Task	Task	Identify Good/Bad	Describe Tests	Identify	Explain			
	Average▼	Batteries	200012010010	Arrangement	Arrangement			
l	64 (3.2)	75 (4.0)	51 (6.5)	96 (2.4)	34 (5.5)			
		1		1				
Rubber Band	Overall	lter	m 1	Item 2	Item 3	Item 4	Item 5	ltem 6
Task	Task	Measure	Lengths	Graph Results	Calculate Increase	Describe Trend	Predict Length	Explain Prediction
	Average <sup>▼</sup>	Presentation	Data Quality	Results	increase	Пена	Length	Trediction
l	63 (3.2)	76 (4.6)	88 (4.5)	63 (4.5)	55 (5.3)	59 (3.0)	51 (5.3)	48 (5.5)
						1		
Solutions	Overall	Item 1		m 2	Item 3	Item 4	Item 5	
Task	Task	Plan Investigation	Conduct Ir	vestigation	Draw Conclusions	Explain Conclusion	Evaluate Design	
	Average▼	investigation	Presentation	Data Quality	Conclusions	Conclusion	Design	
l	36 (3.4)	16 (3.6)	48 (5.9)	51 (6.1)	71 (6.2)	20 (3.7)	12 (4.4)	
		-						
Shadows Task	Overall	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	
	Task	Describe	Explain	Problem Solve	Describe	Present	Conclude and	
	Average <sup>▼</sup>	Observation	Observation	and Record Distances	Investigation	Measurements	Generalize	
	27 (2.2)	56 (4.2)	35 (3.8)	27 (4.0)	23 (3.4)	12 (2.9)	10 (3.7)	

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

\* Percent of total possible points on each item averaged over students.

Average of percentage scores across items; all items weighted equally.

### Hong Kong: Average Percentage Scores on Items by Task\* - Eighth Grade (Continued) Table B.1

Item 1     Item 2     Item 3     Item 4     Item 5     Item 6       Folding and Cutting Task Average*     Overall Task Average*     Item 1     Item 2     Item 3     Item 4       Dice Task     Overall Task Average*     Item 1     Item 2     Item 3     Item 4     Item 5A       Calculator Task     Overall Task Average*     Item 1     Item 2     Item 3     Item 4     Item 5A       Calculator Task     Overall Task Average*     Item 1     Item 2     Item 3     Item 4     Item 5A       Calculator Task     Overall Task Average*     Item 1     Item 2     Item 3     Item 4     Item 5A       Calculator Task     Overall Task Average*     Item 1     Item 2     Item 3     Item 4     Item 5       Folding and Cutting Task     Overall Task Average*     Item 1     Item 2     Item 3     Item 4       Folding and Cutting Task     Overall Task Average*     Item 1     Item 2     Item 3     Item 4       Fold and Cut Sape 2     Fold and Cut Shape 3     Fold and Cut Shape 4     Predict: Nun-Fourine Application Application Application     Stem 4     Stem 5       Fold and Cut Sape 2     Fold and Cut Shape 4     Fold and Cut Shape 4     Fold and Cut Shape 4     Stem 6       Fold and Task Average*     Task Average*     Item 1     Item 2 <th>Plasticine Task</th> <th>Overall Task</th> <th>Item 1A</th> <th>Item 1B Describe</th> <th>Item 2A</th> <th>Item 2B Describe</th> <th>Item 3A</th> <th>Item 3B Describe</th> <th>Item 4A</th> <th>Item 4B Describe</th>	Plasticine Task	Overall Task	Item 1A	Item 1B Describe	Item 2A	Item 2B Describe	Item 3A	Item 3B Describe	Item 4A	Item 4B Describe
Dice Task       Overall Task Average*       Item 1 Complete Table       Item 2 Describe Pattern       Item 3 Apply Algorithm       Item 4 Count Frequencies       Item 5A Identify Most Frequent Number       Item 5B Explain Findings         Calculator Task       Overall Task Average*       Item 1 Perform Calculations       Item 2 Preform Calculations       Item 2 Predict: Pattern       Item 3 Predict: Application       Item 4 Predict: Non-Routine Application       Item 5 Predictions       Item 6 Factors of 455 Reasons Factors of 455 Reasons Factors of 455         Folding and Cutting Task       Overall Task Average*       Item 1 Fold and Out Shape 2       Item 2 Fold and Out Shape 2       Item 3 Fold and Out Shape 2       Item 4 Predict and Draw Shape 4         Around the Bend Task       Overall Task Average*       Item 1 Fold and B Using Scale       Item 2 Fold and B Using Scale       Item 3 Fold and B Using Scale       Item 4 Predict and Draw Shape 4         Around the Bend Task       Overall Task Average*       Item 1 Measure Models A and B       Item 2 Convert Using Scale       Item 3 Relate A and B Solve Problem       Item 5 Scale       Item 5 Scale       Item 6 Find General Rule         Packaging Task       Overall Task Average*       Item 1 Draw Boxes       Item 2 Draw Nets       Item 3 Construct Net to Scale       Item 3 Scale       Item 4 Scale       Scale Problem Real Fundure       Scale Problem Real Fundure Scale       Scale Problem Real Funinture       Scale Scale				Strategy	Weigh 10g Lump	Strategy	Weigh 15g Lump	Strategy		Strategy
Task Average*Complete Table Describe PatternDescribe Pattern Apply AlgorithmCount FrequenciesInterve FrequenciesInterve ExplainExplain Findings77 (2.4)93 (2.2)73 (7.4)94 (2.6)70 (4.0)84 (3.9)48 (6.7)Calculator TaskOverall Average*Item 1 CalculationsItem 2 Identify PatternItem 3 Predict: Routine ApplicationItem 4 Predict: Non-Routine ApplicationItem 6 Explain PredictionsFolding and Cutting TaskOverall Task Average*Item 1 Fold and Cut Shape 2Item 2 Fold and Cut Shape 2Item 3 Fold and Cut Shape 2Item 4 Fold and Cut Shape 2Item 4 Fold and Cut Shape 2Item 6 Factors of 455Around the Bend TaskOverall Task Average*Item 1 Medis A and BItem 2 Convert Using ScaleItem 3 Fold and Cut Relate A and B Solve ProblemItem 5 Solve Problem With A and BItem 5 Solve Problem Vith A and BItem 6 Solve Problem Vith A and BOverall Task Average*Item 1 Models A and B Using ScaleItem 2 Convert Relate A and B Solve ProblemItem 5 Solve Problem Vith A and BOverall ScaleItem 1 RuleItem 2 Convert Relate A and B Solve ProblemItem 5 Solve Problem Vith A and BOverall ScaleItem 1 RuleItem 2 Convert Relate A and B Solve ProblemItem 4 Solve Problem Vith A and BItem 6 Solve Problem RuleOverall ScaleItem 1 		52 (3.7)	92 (2.9)	80 (4.8)	56 (6.0)	55 (5.5)	44 (5.8)	28 (7.9)	27 (5.2)	36 (6.1)
Task Average*Complete Table Describe PatternDescribe Pattern Apply AlgorithmCount FrequenciesInterve FrequenciesInterve ExplainExplain Findings77 (2.4)93 (2.2)73 (7.4)94 (2.6)70 (4.0)84 (3.9)48 (6.7)Calculator TaskOverall Average*Item 1 CalculationsItem 2 Identify PatternItem 3 Predict: Routine ApplicationItem 4 Predict: Non-Routine ApplicationItem 6 Explain PredictionsFolding and Cutting TaskOverall Task Average*Item 1 Fold and Cut Shape 2Item 2 Fold and Cut Shape 2Item 3 Fold and Cut Shape 2Item 4 Fold and Cut Shape 2Item 4 Fold and Cut Shape 2Item 6 Factors of 455Around the Bend TaskOverall Task Average*Item 1 Medis A and BItem 2 Convert Using ScaleItem 3 Fold and Cut Relate A and B Solve ProblemItem 5 Solve Problem With A and BItem 5 Solve Problem Vith A and BItem 6 Solve Problem Vith A and BOverall Task Average*Item 1 Models A and B Using ScaleItem 2 Convert Relate A and B Solve ProblemItem 5 Solve Problem Vith A and BOverall ScaleItem 1 RuleItem 2 Convert Relate A and B Solve ProblemItem 5 Solve Problem Vith A and BOverall ScaleItem 1 RuleItem 2 Convert Relate A and B Solve ProblemItem 4 Solve Problem Vith A and BItem 6 Solve Problem RuleOverall ScaleItem 1 	Diss Task	<b>a</b> "								
Average*     Complete Table     Describe Pattern     Apply Algorithm     Frequencies     Explain Findings       77 (2.4)     93 (2.2)     73 (7.4)     94 (2.6)     70 (4.0)     84 (3.9)     48 (6.7)       Calculator Task     Overall Task Average*     Item 1 Calculations     Item 2 Identity intern Calculations     Item 3 Predict: Pattern     Item 4 Predict: Routine Application     Item 4 Predict: Routine Application     Item 4 Predict: Routine Application     Item 4 Predictions     Item 6 Factors of 455       Folding and Cutting Task     Overall Task Average*     Item 1 Fold and Cut Shape 2     Item 3 Shape 3     Item 4 Predict and Cut Shape 2     Item 4 Shape 4     Item 5 Solve Problem     Item 5 Solve Problem       Around the Bend Task     Overall Task Average*     Item 1 Fold and B     Item 2 Fold and Cut Shape 3     Item 3 Fold and Cut Shape 3     Item 4 Solve Problem     Item 5 Solve Problem     Item 5 Solve Problem       Around the Bend Task     Overall Task Average*     Item 1 Task Average*     Item 2 Convert Using Scale     Item 3 Relate A and B     Item 4 Solve Problem     Item 5 Solve Problem     Solve Problem Real Furniture       Packaging Task     Overall Task Average*     Item 1 Draw Boxes     Item 2 Draw Nets     Item 3 Construct Net to Scale	Dice lask		Item 1	Item 2	Item 3			Item 5B		
Calculator Task       Overall Task Average*       Item 1 Perform Calculations       Item 2 Pattern       Item 3 Predict: Non-Routine Application       Item 4 Predict: Non-Routine Application       Item 5 Explain Predictions       Item 6 Factors of 455         Folding and Cutting Task       Overall Task Average*       Item 1       Item 2       Item 3       Item 4         Folding and Cutting Task       Overall Task Average*       Item 1       Item 2       Item 3       Item 4         Folding and Cutting Task       Overall Task Average*       Item 1       Item 2       Item 3       Item 4         Fold and Cut Shape 1       Fold and Cut Shape 2       Fold and Cut Shape 3       Predict and Draw Shape 4       Solve Problem         Around the Bend Task       Overall Task Average*       Item 1       Item 2       Item 3 Relate A and B       Item 4       Solve Problem       Six Models       Solve Problem       Find General Rule         56 (2.5)       87 (3.7)       72 (4.6)       61 (4.0)       71 (5.3)       46 (6.1)       42 (4.5)       60 (4.3)       9 (3.2)         Packaging Task       Overall Task Average*       Item 1       Item 2       Item 3       Construct Net to Scale       Scale       Relate Models to Relate Models to Scale       60 (4.3)       9 (3.2)			Complete Table	Describe Pattern	Apply Algorithm			Explain Findings		
Overall Task Average*       Deform Calculations       Identify Pattern       Predict: Routine Application       Predict: Routine Application       Predict: Routine Application       Explain Predict: Routine Application       Explain Predict: Reasons Factors       Factors of 455         Folding and Cutting Task       Overall Task Average*       Item 1       Item 2       Item 3       Item 4         Folding and Cutting Task       Overall Task Average*       Item 1       Item 2       Item 3       Item 4         Fold and Cut Shape 1       Fold and Cut Shape 2       Fold and Cut Shape 3       Fold and Cut Shape 4       Fo		77 (2.4)	93 (2.2)	73 (7.4)	94 (2.6)	70 (4.0)	84 (3.9)	48 (6.7)		
Overall Task Average*       Deform Calculations       Identify Pattern       Predict: Routine Application       Predict: Routine Application       Predict: Routine Application       Explain Predict: Routine Application       Explain Predict: Reasons Factors       Factors of 455         Folding and Cutting Task       Overall Task Average*       Item 1       Item 2       Item 3       Item 4         Folding and Cutting Task       Overall Task Average*       Item 1       Item 2       Item 3       Item 4         Fold and Cut Shape 1       Fold and Cut Shape 2       Fold and Cut Shape 3       Fold and Cut Shape 4       Fo			1							
Idsk Average*CalculationsPatternRoutine ApplicationNon-Routine ApplicationPredictionsReasons Factors IncorrectFind Correct Factors55 (1.9)98 (1.0)38 (6.3)90 (2.6)65 (4.0)35 (4.8)37 (2.4)19 (4.2)Folding and Cutting Task Average*76 (4.8)77 (5.2)80 (4.7)78 (5.2)70 (6.3)Item 1 Shape 1Item 2 Fold and Cut Shape 2Item 3 Fold and Cut Shape 3Around the Bend Task Average*Overall Models A and BItem 1 Using ScaleItem 2 Convert Using ScaleItem 3 Relate A and B to Real FurnitureItem 5 Solve Problem With A and BItem 5 Draw Models to ScaleItem 6 Six ModelsPackaging TaskOverall Task Average*Item 1 Item 1Item 2 Draw NetsItem 3 Construct Net to ScaleItem 1 A (4.0)Item 3 Solve Problem With A and BPackaging TaskOverall Task Average*Item 1 Draw BoxesItem 2 Draw NetsItem 3 Construct Net to Scale	Calculator Task	Overall							-	
Average*       Application       Application       Application       Application       Application         55 (1.9)       98 (1.0)       38 (6.3)       90 (2.6)       65 (4.0)       35 (4.8)       37 (2.4)       19 (4.2)         Folding and Cutting Task         Toget and Cut Shape 1       Item 2 Fold and Cut Shape 2       Item 3 Fold and Cut Shape 3       Item 4 Predict and Draw Shape 4         Around the Bend Task       Overall Task Average*       Item 1       Item 2 Shape 1       Item 2 Shape 2       Item 3 Fold and Cut Shape 3       Item 4         Solve Problem Bend Task       Item 1       Item 2 Models A and B       Item 3 Convert Using Scale       Item 4 Relate A and B       Solve Problem With A and B       Solve Problem Six Models to Scale       Find General Real Furniture         Packaging Task       Overall Task Average*       Item 1       Item 2 Draw Nets       Item 3 Construct Net to Scale       Solve Problem Six Models to Scale       Solve Problem Six Models to Scale       Solve Problem Six Models to Scale       Find General Rule         Packaging Task       Overall Task Average*       Item 1       Item 2 Draw Nets       Construct Net to Scale       Overal       Item 3 Scale       Solve Problem		Task								
Folding and Cutting Task       Overall Task Average <sup>v</sup> Item 1 Fold and Cut Shape 1       Item 2 Fold and Cut Shape 2       Item 3 Fold and Cut Shape 3       Item 4 Predict and Draw Shape 4         Around the Bend Task       Overall Task Average <sup>v</sup> Item 1 Measure Models A and B       Item 2 Convert Using Scale       Item 3 Relate A and B to Real Furniture       Item 4 Solve Problem With A and B       Item 5 Six Models       Item 6 Find General Rule         Packaging Task       Overall Task Average <sup>v</sup> Item 1 Measure Models A and B       Item 2 Convert Using Scale       Item 3 Relate A and B to Real Furniture       Item 4 Solve Problem With A and B       Item 5 Draw Models to Scale       Item 6 Find General Rule         Packaging Task       Overall Task Average <sup>v</sup> Item 1 Draw Boxes       Item 2 Draw Nets       Item 3 Construct Net to Scale		Average▼								
Cutting Task       Task       Fold and Cut       Fold and Cut       Fold and Cut       Fold and Cut       Predict and Draw         Around the Bend Task       0verall       Item 1       Item 2       Item 3       Item 4       Solve Problem         Around the Bend Task       0verall       Item 1       Item 2       Convert       Relate A and B       Solve Problem       Six Models to       Solve Problem       Find General         Average v       Models A and B       Using Scale       61 (4.0)       71 (5.3)       46 (6.1)       42 (4.5)       60 (4.3)       9 (3.2)         Packaging Task       Overall       Item 1       Item 2       Item 3       Construct Net to Scale       Construct Net to Scale       For the scale       Solve Problem       Solve Prob		55 (1.9)	98 (1.0)	38 (6.3)	90 (2.6)	65 (4.0)	35 (4.8)	37 (2.4)	19 (4.2)	
Cutting Task       Task       Fold and Cut       Fold and Cut       Fold and Cut       Fold and Cut       Predict and Draw         Around the Bend Task       0verall       Item 1       Item 2       Item 3       Item 4       Solve Problem         Around the Bend Task       0verall       Item 1       Item 2       Convert       Relate A and B       Solve Problem       Six Models to       Solve Problem       Find General         Average v       Models A and B       Using Scale       61 (4.0)       71 (5.3)       46 (6.1)       42 (4.5)       60 (4.3)       9 (3.2)         Packaging Task       Overall       Item 1       Item 2       Item 3       Construct Net to Scale       Construct Net to Scale       For the scale       Solve Problem       Solve Prob	Estable en en el			<u> </u>			1			
Around the Bend Task     Overall Task Average     Item 1 Models A and B     Item 2 Shape 2     Item 3 Shape 3     Item 4 Shape 4       Around the Bend Task     Overall Task Average     Item 1 Models A and B     Item 2 Convert Using Scale     Item 3 Relate A and B to Real Furniture     Item 4 Solve Problem With A and B     Item 5 Six Models     Item 6 Find General Rule       56 (2.5)     87 (3.7)     72 (4.6)     61 (4.0)     71 (5.3)     46 (6.1)     42 (4.5)     60 (4.3)     9 (3.2)       Packaging Task       Overall Average     Item 1 Draw Boxes     Item 2 Draw Nets     Item 3 Construct Net to Scale	•									
Around the Bend Task     Overall Task Average <sup>v</sup> Item 1     Item 2     Item 3     Item 3     Item 4     Item 5     Item 6       56 (2.5)     87 (3.7)     72 (4.6)     61 (4.0)     71 (5.3)     46 (6.1)     42 (4.5)     60 (4.3)     9 (3.2)       Packaging Task       Overall Task Average <sup>v</sup> Item 1     Item 2     Item 3     Construct Net to Scale     Construct Net to Scale	Cutting lask									
Bend Task     Measure Average*     Measure Models A and B     Convert Using Scale     Relate A and B to Real Furniture     Solve Problem With A and B     Solve Problem With A and B     Solve Problem Draw Models to Scale     Solve Problem Relate Models to Scale     Find General Rule       56 (2.5)     87 (3.7)     72 (4.6)     61 (4.0)     71 (5.3)     46 (6.1)     42 (4.5)     60 (4.3)     9 (3.2)       Packaging Task     Overall Task Average*     Item 1     Item 2     Item 3		76 (4.8)	77 (5.2)	80 (4.7)	78 (5.2)	70 (6.3)				
Bend Task     Measure Average*     Measure Models A and B     Convert Using Scale     Relate A and B to Real Furniture     Solve Problem With A and B     Solve Problem With A and B     Solve Problem Draw Models to Scale     Solve Problem Relate Models to Scale     Find General Rule       56 (2.5)     87 (3.7)     72 (4.6)     61 (4.0)     71 (5.3)     46 (6.1)     42 (4.5)     60 (4.3)     9 (3.2)       Packaging Task     Overall Task Average*     Item 1     Item 2     Item 3										
Models A and B     Using Scale     Notacl Value     With A and B     Using Models to Scale     Real Furniture     Draw Models to Scale     Real Furniture     Notacl Value     Rule       56 (2.5)     87 (3.7)     72 (4.6)     61 (4.0)     71 (5.3)     46 (6.1)     42 (4.5)     60 (4.3)     9 (3.2)       Packaging Task     Overall Task Average <sup>v</sup> Item 1     Item 2     Item 3       Draw Boxes     Draw Nets     Construct Net to Scale     Scale     Verage		Overall	Item 1							
Average*         Scale         Real Furniture         with Models           56 (2.5)         87 (3.7)         72 (4.6)         61 (4.0)         71 (5.3)         46 (6.1)         42 (4.5)         60 (4.3)         9 (3.2)           Packaging Task         Overall         Item 1         Item 2         Item 3         Construct Net to Scale	Bend Task						Draw Models to		Solve Problem	
Packaging Task     Overall     Item 1     Item 2     Item 3       Task     Draw Boxes     Draw Nets     Construct Net to Scale		Average <sup>▼</sup>		e ching e care						11010
Task     Draw Boxes     Draw Nets     Construct Net to Scale		56 (2.5)	87 (3.7)	72 (4.6)	61 (4.0)	71 (5.3)	46 (6.1)	42 (4.5)	60 (4.3)	9 (3.2)
Task     Draw Boxes     Draw Nets     Construct Net to Scale					1	1				
Average Draw Boxes Draw Nets Scale	Packaging Task		Item 1	Item 2	Item 3					
54 (3.4) 53 (5.0) 55 (5.1) 53 (4.5)			Draw Boxes	Draw Nets						
		54 (3.4)	53 (5.0)	55 (5.1)	53 (4.5)					

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

\* Percent of total possible points on each item averaged over students.

Average of percentage scores across items; all items weighted equally.

# Table B.2 Israel: Average Percentage Scores on Items by Task\* - Unweighted Data Eighth Grade Eighth Grade

Pulse Task	Overall	Ite	m 1	Item 2	Item 3	]		
	Task	Measur	e Pulse	Describe Trend	Explain Results			
	Average <sup>▼</sup>	Presentation	Data Quality	Trena	Results			
	62 (2.9)	67 (5.7)	43 (4.5)	84 (3.2)	55 (5.0)			
				1				
Magnet Task	Overall	Item 1	Item 2					
	Task Average <sup>▼</sup>	Identify Magnet	Describe Strategy					
	88 (3.6)	77 (6.5)	98 (1.9)					
Batteries	Overall	Item 1	Item 2	Item 3	Item 4			
Task	Task Average <sup>▼</sup>	Identify Good/Bad Batteries	Describe Tests	Identify Arrangement	Explain Arrangement			
	65 (4.2)	52 (10.1)	55 (7.3)	98 (1.8)	54 (3.3)	]		
				1				
Rubber Band	Overall		m 1	Item 2	Item 3	Item 4	Item 5	ltem 6
Task	Task	Measure	, i i i i i i i i i i i i i i i i i i i	Graph Results	Calculate Increase	Describe Trend	Predict Length	Explain Prediction
	Average▼	Presentation	Data Quality	Results	morease	Ticha	Longin	Treatenent
	75 (2.7)	91 (3.2)	93 (2.7)	65 (9.2)	60 (6.4)	61 (3.7)	85 (5.5)	69 (3.9)
						1		
Solutions	Overall	Item 1		m 2	Item 3	Item 4	Item 5	
Task	Task	Plan Investigation		vestigation	Draw Conclusions	Explain Conclusion	Evaluate Design	
	Average <sup>▼</sup>	inveoligation	Presentation	Data Quality		Conclusion	Doolgii	
	64 (1.3)	56 (4.5)	77 (5.2)	61 (6.0)	91 (4.2)	57 (5.8)	40 (6.1)	
Shadows Task	Overall	Item 1	ltem 2	Item 3	Item 4	Item 5	Item 6	
	Task	Describe	Explain	Problem Solve and Record	Describe	Present	Conclude and	
	Average▼	Observation	Observation	Distances	Investigation	Measurements	Generalize	
	43 (3.8)	92 (2.8)	29 (6.0)	25 (3.3)	46 (7.8)	48 (8.4)	18 (5.3)	

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

\* Percent of total possible points on each item averaged over students.

\*Average of percentage scores across items; all items weighted equally.

#### Israel: Average Percentage Scores on Items by Task\* - Unweighted Data Eighth Grade (Continued)

Plasticine Task	Overall Task Average <sup>▼</sup>	<b>Item 1A</b> Weigh 20g Lump	Item 1B Describe Strategy 20g Lump	<b>Item 2A</b> Weigh 10g Lump	Item 2B Describe Strategy 10g Lump	<b>Item 3A</b> Weigh 15g Lump	Item 3B Describe Strategy 15g Lump	<b>Item 4A</b> Weigh 35g Lump	Item 4B Describe Strategy 35g Lump
	78 (4.6)	98 (2.0)	91 (5.9)	96 (4.1)	61 (10.0)	91 (5.0)	51 (8.8)	79 (8.6)	53 (9.3)
Dice Task	Overall	Item 1	Item 2	Item 3	Item 4	Item 5A	Item 5B		
	Task Average <sup>▼</sup>	Complete Table	Describe Pattern	Apply Algorithm	Count Frequencies	Identify Most Frequent Number	Explain Findings		
[	74 (3.1)	87 (5.0)	58 (6.0)	91 (4.1)	71 (5.9)	80 (2.8)	56 (6.4)		
<u> </u>									
Calculator Task	Overall	Item 1	Item 2	Item 3 Predict:	Item 4 Predict:	Item 5	Iter Factors	-	
	Task Average <sup>▼</sup>	Perform Calculations	Identify Pattern	Routine Application	Non-Routine Application	Explain Predictions	Reasons Factors Incorrect	Find Correct Factors	
	63 (2.3)	98 (1.1)	46 (6.9)	83 (5.4)	64 (4.8)	41 (6.4)	67 (2.1)	39 (4.6)	
		I	[	[	1	1			
Folding and Cutting Task	Overall Task Average <sup>▼</sup>	Item 1 Fold and Cut Shape 1	Item 2 Fold and Cut Shape 2	Item 3 Fold and Cut Shape 3	Item 4 Predict and Draw Shape 4				
	67 (5.5)	70 (6.2)	72 (6.6)	69 (5.1)	57 (5.8)	]			
			1	1	1	-			
Around the	Overall	Item 1	ltem 2	Item 3	Item 4		Item 5		Item 6
Bend Task	Task Average <sup>▼</sup>	Measure Models A and B	Convert Using Scale	Relate A and B to Real Furniture	Solve Problem With A and B	Draw Models to Scale	Six Models Relate Models to Real Furniture	Solve Problem with Models	Find General Rule
	62 (2.1)	83 (5.3)	74 (7.6)	79 (4.0)	69 (5.8)	48 (6.9)	67 (4.7)	60 (3.9)	14 (4.8)
			1		1				
Packaging Task	Overall	Item 1	ltem 2	Item 3					
	Task	Draw Boxes	1	Construct Net					

\* Percent of total possible points on each item averaged over students.

63 (6.6)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

Average of percentage scores across items; all items weighted equally.

55 (5.4)

58 (5.4)

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

56 (9.1)

## Table B.3 Israel: Average Percentage Scores on Items by Task\* - Unweighted Data Fourth Grade Fourth Grade

Pulse Task	Overall	Item 1	Item 2	Item 3	Item 4			
	Task Average <sup>▼</sup>	Measure Pulse at Rest	Measure Pulse During Exercise	Describe Trend	Explain Results			
	54 (2.5)	72 (5.0)	64 (3.7)	57 (4.1)	22 (2.0)			
Magnet Task	Overall	Item 1	Item 2					
	Task Average <sup>▼</sup>	Identify Stronger Magnet	Describe Strategy					
	93 (1.8)	93 (2.5)	94 (2.0)					
,						I		
Batteries	Overall	Item 1	Item 2	Item 3	Item 4			
Task	Task Average <sup>▼</sup>	Identify Good/Bad Batteries	Describe Tests	Identify Arrangement	Explain Arrangement			
	46 (2.3)	39 (4.3)	23 (3.1)	82 (3.8)	39 (2.3)			
,								
Rubber Band	Overall	Item 1	Item 2	Item 3	Item 4	Item 5		
Task	Task Average <sup>▼</sup>	Record Lengths	Calculate Increase	Describe Trend	Predict Length	Explain Prediction		
	61 (1.5)	95 (1.1)	48 (3.6)	57 (2.7)	62 (3.6)	43 (3.6)		
		1						1
Containers Task	Overall Task	Measure Tem Record		Item 2 Identify Best Insulator	Item 3 Explain Best Insulator	Item 4 Apply to Ice Cream	Item 5 Explain	
	Average <sup>▼</sup>	Ability to Use Thermometer	Quality of Data Gathering	Insulator	Insulator	Ice Cream	Application	
	40 (1.7)	87 (3.8)	72 (4.3)	39 (3.1)	11 (2.3)	23 (3.3)	5 (1.6)	
								_
Shadows Task	Overall	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	
	Task Average <sup>▼</sup>	Describe Shadow: Closer	Describe Shadow: Further	Measure Shadow Width	Measure Distance	Record 3 More Measurements	Explain Shadow Size	

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

12 (2.6)

20 (2.3)

Item 7 Find General

Rule

7 (2.5)

\* Percent of total possible points on each item averaged over students.

74 (3.6)

35 (1.9)

Average of percentage scores across items; all items weighted equally.

77 (3.7)

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

26 (3.4)

27 (5.0)

#### Israel: Average Percentage Scores on Items by Task\* - Unweighted Data Fourth Grade (Continued) Table B.3

Plasticine Task	Overall	Item 1A	Item 1B	Item 2A	Item 2B	Item 3A	Item 3B	Item 4A	Item 4B
FIDSULINE IDSK	Task		Describe		Describe		Describe		Describe
	Average <sup>•</sup>	Weigh 20g Lump	Strategy 20g Lump	Weigh 10g Lump	Strategy 10g Lump	Weigh 30g Lump	Strategy 30g Lump	Weigh 15g Lump	Strategy 15g Lump
		75 (5.0)		EQ (C 4)		69 (6 1)		E4 (4 0)	
	56 (3.8)	75 (5.8)	74 (4.2)	59 (6.4)	39 (3.8)	68 (6.1)	53 (5.3)	54 (4.8)	30 (4.7)
Dice Task	Overall	Item 1	Item 2	Item 3	Item 4	Item 5A	Item 5B		
2.00 .001	Task		Ren 2		Count	Identify Most			
	Average <sup>•</sup>	Complete Table	Describe Pattern	Apply Algorithm	Frequencies	Frequent Number	Explain Findings		
	58 (2.4)	73 (3.3)	48 (3.5)	88 (2.6)	55 (4.1)	60 (4.5)	25 (4.6)		
							-		
Calculator Task	Overall	Item 1	Item 2	Item 3	Item 4	Item 5			
	Task	Perform	Identify Pattern	Predict:	Predict:	Explain			
	Average <sup>▼</sup>	Calculations	Identity Pattern	Routine Application	Non-Routine Application	Predictions			
	48 (2.6)	96 (1.1)	27 (3.4)	56 (5.2)	37 (4.4)	21 (2.8)			
Folding and	Overall	Item 1	Item 2	Item 3					
Cutting Task	Task	Fold and Cut	Fold and Cut	Fold and Cut					
	Average▼	Shape 1	Shape 2	Shape 3					
	50 (3.3)	50 (3.8)	53 (3.3)	46 (4.2)					
						_			
Around the	Overall	Item 1	Item 2	Item 3	Item 4				
Bend Task	Task	Measure Models	Convert Using	Draw Models to	Solve Problem				
	Average▼		Scale	Scale	With Models				
	47 (3.3)	49 (5.1)	29 (4.8)	47 (5.0)	62 (3.9)				
			1						
		Item 1	Item 2	Item 3					
Packaging Task	Overall								
Packaging Task	Overall Task Average <sup>▼</sup>	Draw Boxes	Draw Nets	Construct Net to Scale					
Packaging Task	Task		Draw Nets 28 (3.3)						

\* Percent of total possible points on each item averaged over students.

Average of percentage scores across items; all items weighted equally.