

Stretching and Shrinking: Developing Proportional Reasoning in the Context of Similarity (Scale Drawings)

■ Proportional Reasoning ■ Similar Figures	Introduction <i>Setting the Scene</i>	Exploration <i>Mucking About</i>	Analysis <i>Going Deeper</i>	Synthesis <i>Looking Across</i>	Abstraction <i>Going Beyond</i>
Investigation 1: Enlarging and Reducing Shapes					
1.1 Solving a Mystery with Proportional Reasoning	1.1		1.1		
1.2 Designing a Poster Using a Rubber Band Stretcher	1.2	1.2	1.2		
1.3 Scaling Up and Down with Percents	1.2	1.2	1.3		
Mathematical Reflection		MR	MR		
Investigation 2: The Mug Wump Family: Similar Figures					
2.1 Drawing Wumps: Making Similar Figures		2.1	2.1 2.1		
2.2 Hats Off to the Wumps: Changing a Figure's Size and Location			2.2 2.2		
2.3 Mouthing Off and Nosing Around: Scale Factors			2.3 2.3		
Mathematical Reflection			MR MR		
Investigation 3: Scaling Perimeter and Area					
3.1 Using Proportional Reasoning to Rep-tile			3.1	3.1	
3.2 Designing Under Constraints: Scale Factors and Similar Shapes			3.2	3.2 3.2	
3.3 Out of Reach: Finding Lengths with Similar Triangles				3.3 3.3	
Mathematical Reflection				MR MR	
Investigation 4: Similar Figures and Ratios					
4.1 Equivalent Ratios Within Similar Figures			4.1	4.1	
4.2 Finding Missing Parts: Using Similarity to Find Measurements				4.2 4.2	
4.3 Using Shadows to Find Heights				4.3 4.3	
Mathematical Reflection				MR MR	