Shape and Space

Activity 2 Assessment

Drawing and Interpreting Scale Drawings

Content: Using Scale Diagrams to Solve Problems			
Uses a scale factor to identify an enlargement and a reduction "Since 1 cm on the scale diagram represents 10 cm in the real world, the scale diagram is a reduction."	Uses the scale factor of a scale diagram to solve problems where the units are the same "Since 1 cm on the scale diagram represents 10 cm in the real world, I know the scale is 1:10. So, if the actual length is 50 cm, the length on the scale diagram is 5 cm."	Recognizes that a scale factor can be written in several ways and intentionally chooses which way to use "The scale given is 5 cm:42 m. I can also write this as 1 cm:8.4 m or 1 cm:840 cm. I need to determine an answer in metres, so I'll use 1 cm:8.4 m."	Writes a proportion to solve for an unknown measure in problems involving scale diagrams "I know that the scale is 5 cm:42 m. If I know an actual measure is 85 m, I can write the proportion $\frac{5\text{ cm}}{42\text{ m}} = \frac{x\text{ cm}}{85\ m}$, then solve for *x* to find the measure on the scale diagram."
Observations/Documentation			

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Competency: Representing Situations Using Scale Diagrams			
Recognizes whether a reduction or enlargement is needed to represent a given situation "I need to show a long distance in a small space, so my scale diagram will be a reduction."	Chooses an appropriate scale factor to represent a situation using a scale diagram "These two locations are 15 km apart. I want them to fit on my piece of paper so I will reduce the distance by using a scale of 1 cm:5 km."	Uses scale factor to accurately draw a scale diagram to represent a situation "The distances I need to represent are 15 km, 20 km, and 5 km. If my scale factor is 1 cm:5 km, I can represent them with lines of lengths 3 cm, 4 cm, and 1 cm."	Uses appropriate scale to optimize diagram and recognizes multi-directional scaling "I drew a rectangle around all my points. Then I found the distance from a side of the rectangle to each point. This helped me find the exact location when I placed the points on my scale diagram. "
Observations/Documentation			