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| **Exploring Symmetry with 2-D Shapes** |
| Identifies a line of symmetry in a design “I see one line of symmetry. If I fold the design on the line, the 2 sides match exactly.” | Completes a symmetrical design, placing most shapes correctly“I’m not sure about the blue block, but it looks right to me.” | Successfully completes a symmetrical design and uses math language to describe it“This design is symmetrical because all the blocks below the line are reflections of the blocks above the line. I used a Mira to check.” | Constructs symmetrical designs and identifies all lines of symmetry“I made my own design. It has 2 lines of symmetry.” |
| **Observations/Documentation** |
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| **Applying Transformations to 2-D Shapes** |
| Identifies congruent shapes with same orientation“These shapes are congruent because they have the same shape and size and are facing the same way.” | Identifies congruent shapes with different orientations (uses physical movement)“These shapes are congruent because when I turn one shape, it matches the other shape exactly.” | Identifies congruent shapes with different orientations (uses visualization)“These shapes are congruent because I can picture turning one shape half a turn to match the other.” |
| **Observations/Documentation** |
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| **Applying Transformations to 2-D Shapes (con’t)** |
| Identifies translations but struggles to differentiate between reflections and rotations“I would translate A to the right to get B. I’m not sure whether I would reflect or rotate C to get D.” | Performs the transformation needed to match two congruent shapes (i.e., rotation, reflection, or translation)“I used a Mira and the two shapes matched exactly. So, Shape C was reflected.” | Uses orientation to flexibly predict and describe transformation of congruent shapes “From A to B: same orientation, so translation to the right; from C to D: opposite orientations, so a reflection in vertical line between C and D; from E to F: different orientations, so quarter-turn clockwise rotation.” |
| **Observations/Documentation** |
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