Hands-on Spatial Relations Practice

Welcome to the Hands-On Spatial Relations Practice!

If you've ever stared at a flat drawing on a test and tried to fold it together in your head, you know it can give you an absolute headache. The truth is, some of the smartest folks out there get tripped up by these questions simply because their brains prefer a hands-on approach.

That's exactly why we built this workbook. Sometimes the best way to understand a tricky concept is to literally get your hands on it. We want to take the guesswork out of spatial relations so you can walk into test day with confidence.

Here is how to use these practice shapes:

Print this workbook (make sure you print single-sided!).

Grab a pair of scissors and carefully cut along the solid outside lines.

Crease and fold along the dotted inside lines.

Take your time. Notice which edges meet and how the patterns line up when the 2D paper becomes a 3D object. Once you've built a few of these physically, doing it in your head during the real exam will feel a whole lot more natural.

Best of luck with your studying. (And remember, by using our materials, you are also helping us support educational charities across the globe—so you are helping yourself and someone else at the same time).

Grab your scissors, and let's get started!

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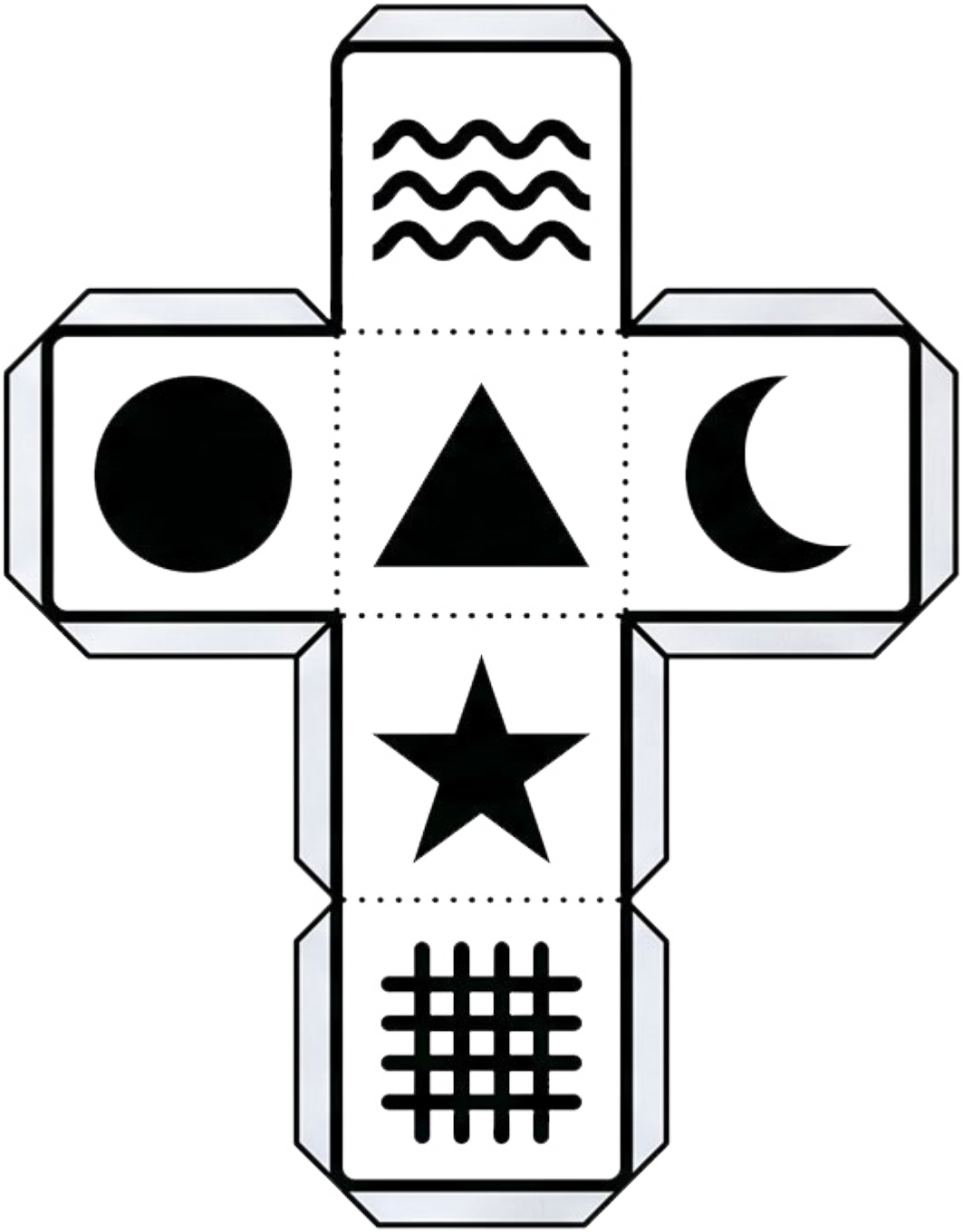
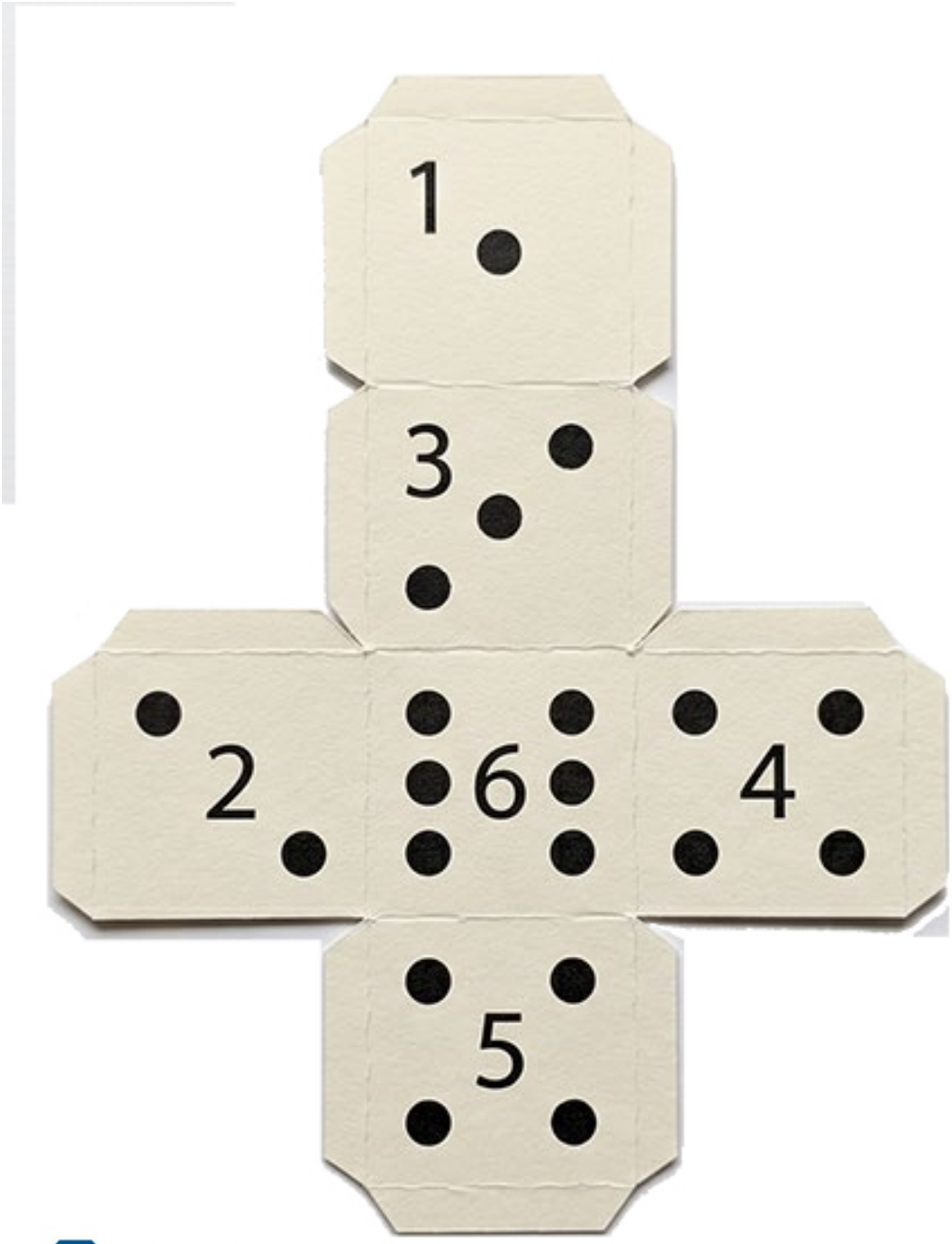
1. The Classic Cube (The Cross Net)

Identify which symbol ends up directly opposite the star once the cube is fully assembled.



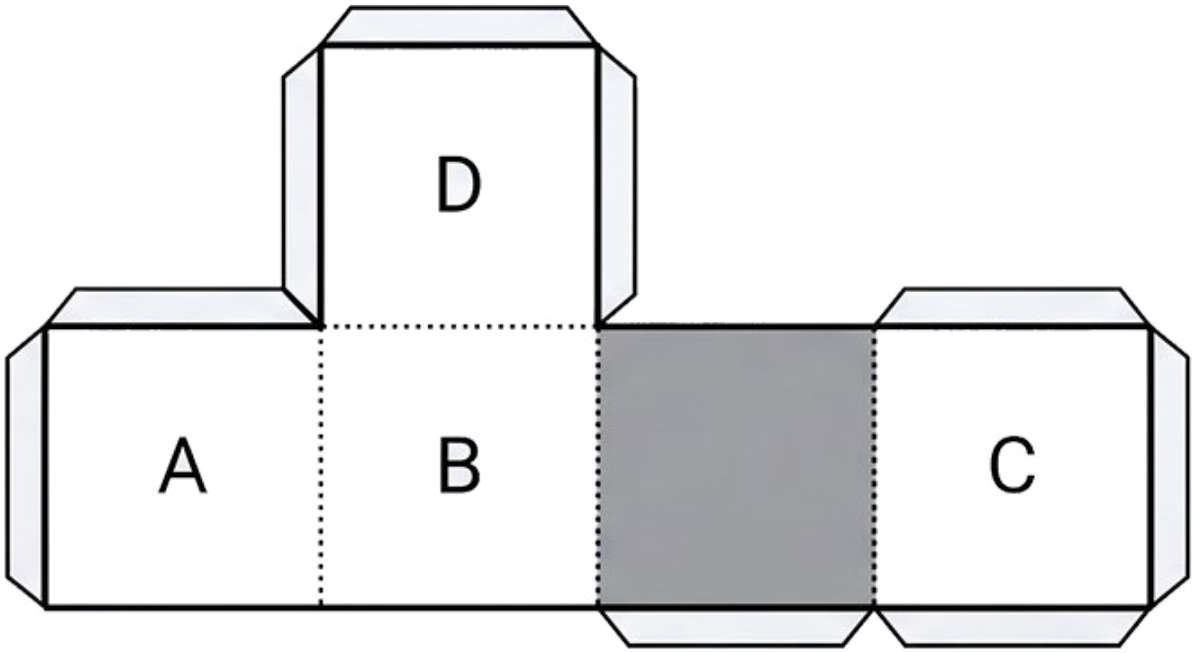
2. The Numbered Die

Fold and determine which two numbers touch the top and bottom of the "4" face.



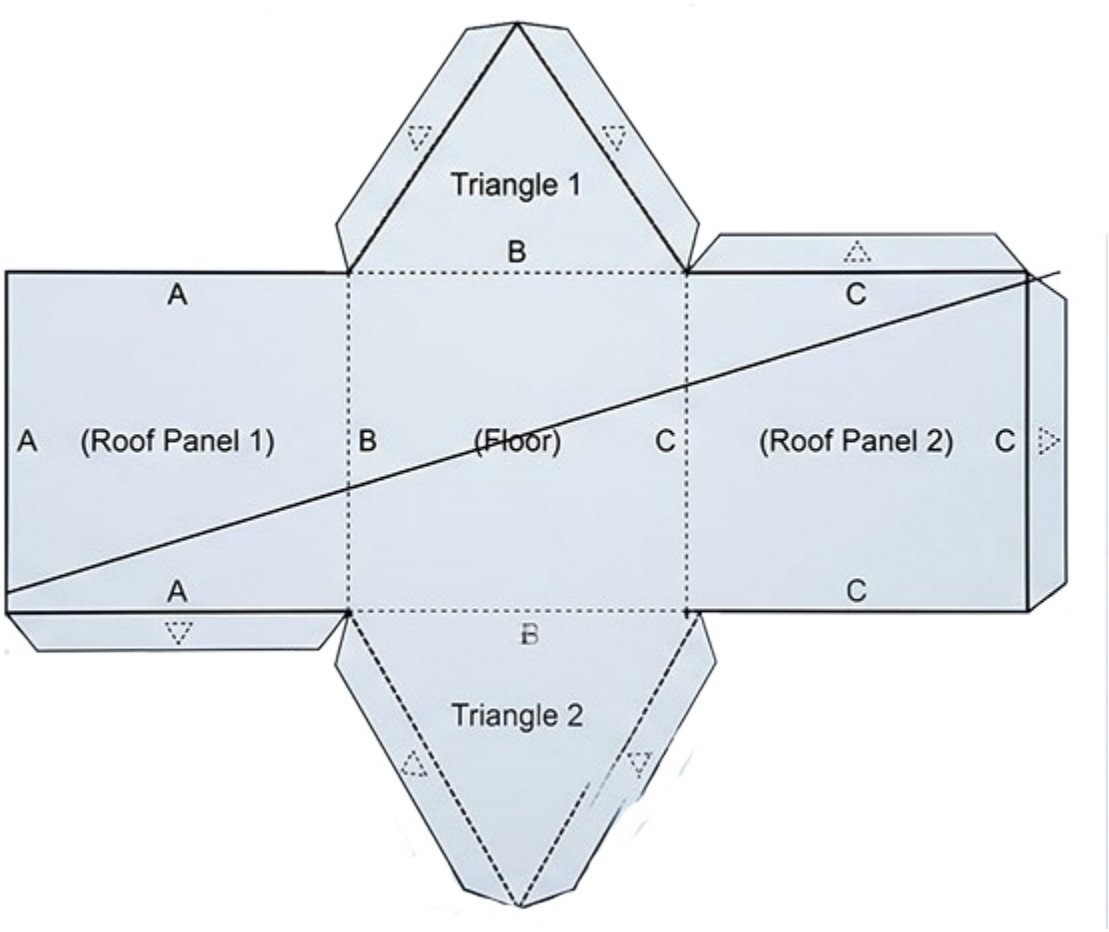
3. The Open Box

Fold the shape into a box without a lid, using the gray square as the bottom base. Identify which square becomes the front-facing wall.



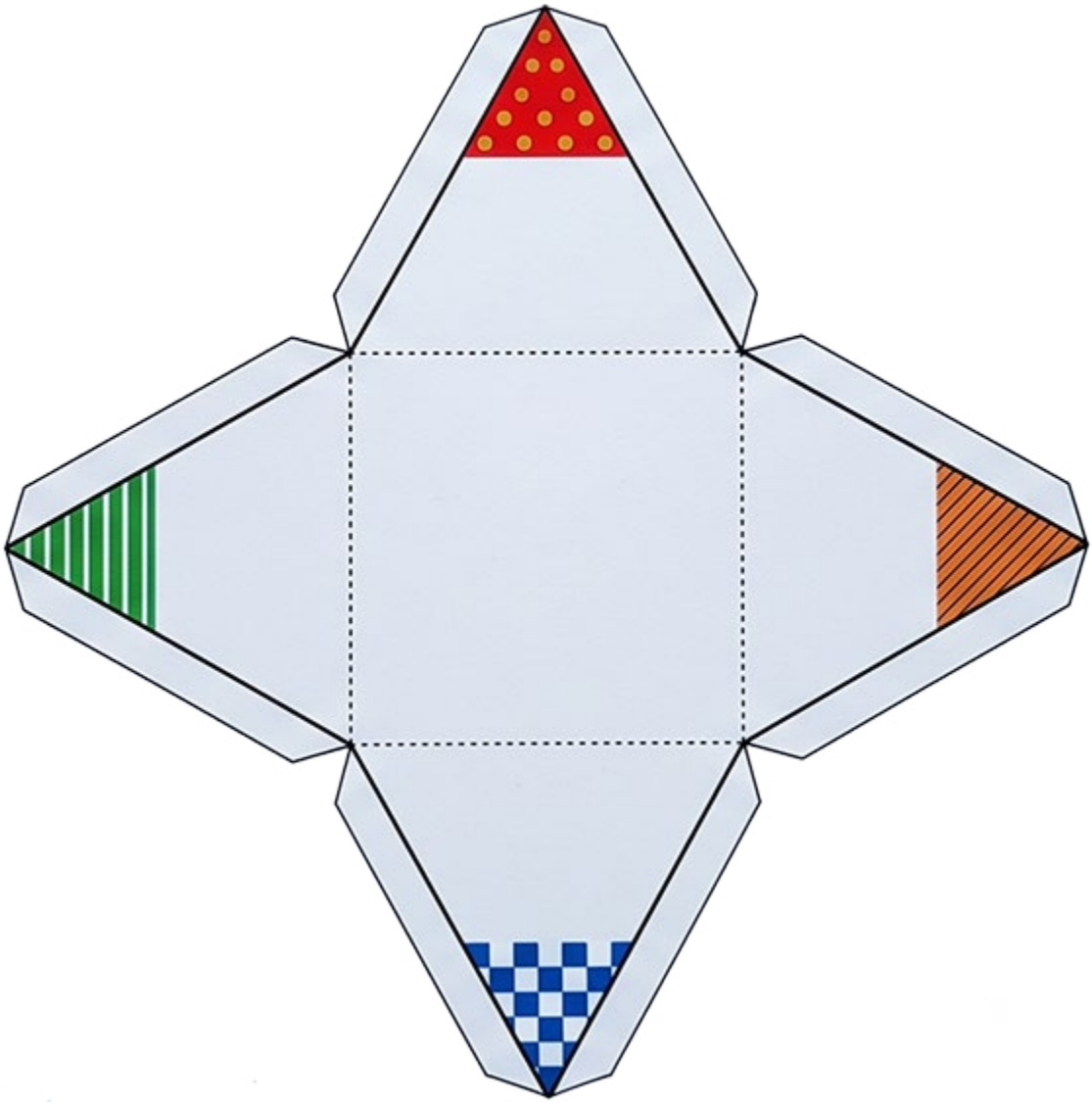
4. The Triangular Prism (The Tent)

The Question: Ask the student to fold it and see if the lines actually connect to form a single continuous loop around the 3D tent.



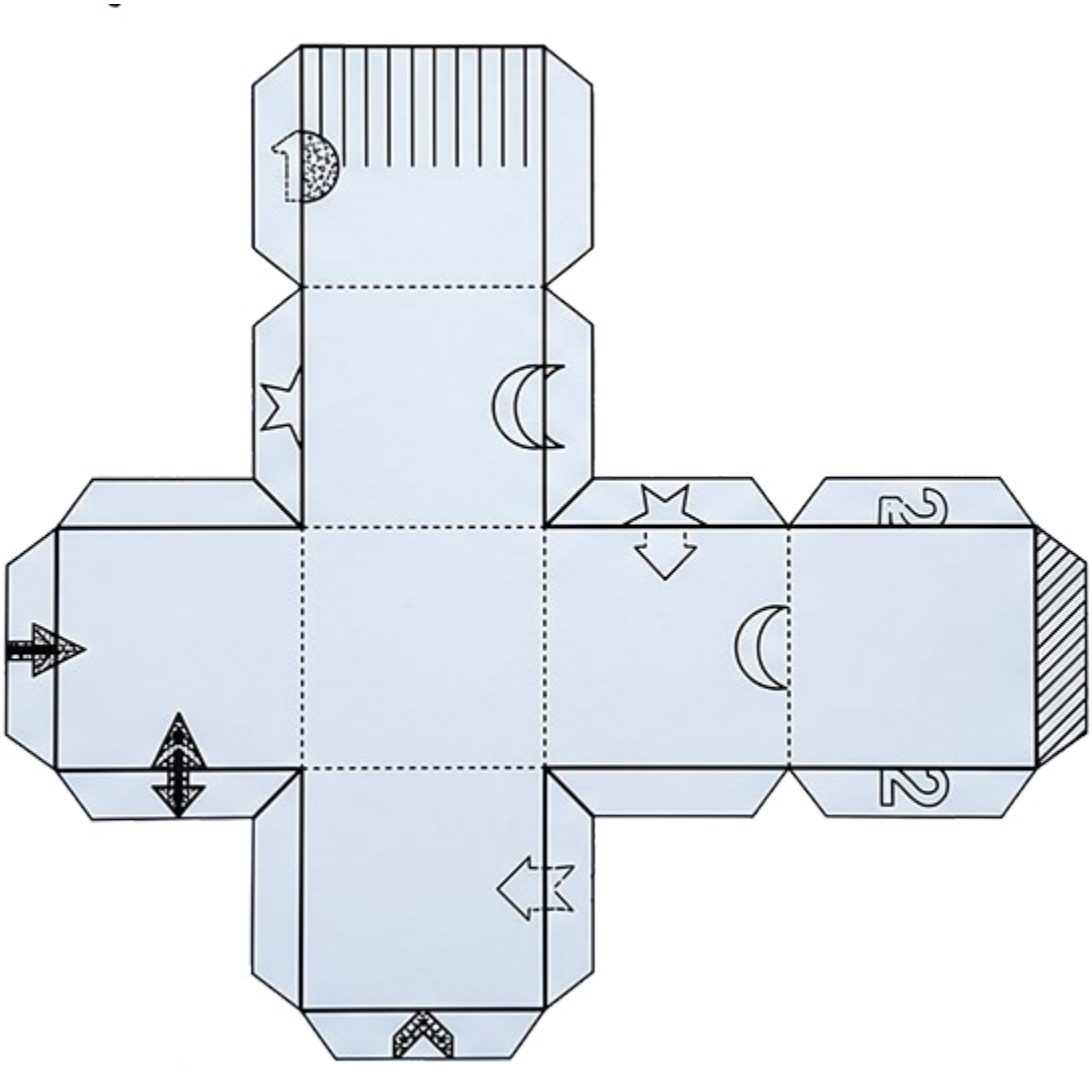
5. The Square-Based Pyramid

Fold the pyramid to physically prove that all four distinct points come together to form a single apex at the top.



6. The Pattern Match (Advanced Cube)

Cut and fold the cube to see which halves join together perfectly to complete the shape. This is a classic, high-difficulty spatial reasoning question that is much easier to grasp with a paper model.



The Kitchen Table Answer Key

Here is how things shake out once you have your scissors and paper scraps cleared away.

I always recommend that students actually hold the finished 3D shape in their hands while reading these answers. Turning the physical paper around in the light does more to build spatial intuition than staring at a screen for hours on end. It's exactly why we design these out-of-the-box materials here in Victoria—to give folks a practical, hands-on way to make the concepts click.

1. The Classic Cube (The Cross Net)

Answer: The Waves symbol ends up directly opposite the Star.

The "Why": When you fold the cross up, the Star becomes the bottom base, the Triangle becomes the back wall, and the continuous line of squares folds over so that the top square (the Waves) becomes the "lid" facing directly opposite the bottom.

2. The Numbered Die

Answer: The numbers 1 and 6 touch the top and bottom edges of the "4" face.

The "Why": On this specific T-shape net, if you hold the "4" face flat towards you as the front wall, folding the shape backwards makes "1" the top lid and "6" the bottom base.

Shape 3: The Open Box

Answer: Square A becomes the front-facing wall.

The "Why": With the gray square flat on the table as the floor, Square C folds up to be the right wall, and Square B folds up to be the left wall. Square A is attached to the left wall, so as it folds around 90 degrees, it swings right to the front. Square D swings back to form the rear wall.

Shape 4: The Triangular Prism (The Tent)

Answer: Yes, the lines connect perfectly to form a single, unbroken loop.

The "Why": The line starts at the outer edge of panel A, goes down to the floor (panel B), crosses the floor, and goes up panel C. When panels A and C are folded up to form the roof, their outer edges meet at the top ridge of the tent, closing the loop perfectly.

Shape 6: The Square-Based Pyramid

Answer: Yes, all four distinct colored/patterned tips meet at a single point.

The "Why": Because the four triangles are identical isosceles triangles attached to a central square, folding them inward at the exact same angle forces their furthest points to converge perfectly at the apex.

Shape 7: The Pattern Match (Advanced Cube)

Answer: The scattered halves of the shapes located on the non-adjacent outer edges of the paper net will pair up to form a complete Star and a complete Crescent/Arrow.

The "Why": This is the ultimate test of spatial memory. By folding the complex L-net, edges that are far apart on the 2D page (like the top edge of the upper square and the bottom edge of the lower square) swing around to become connecting seams.

Taking the extra time to literally build your understanding from the ground up is how you beat the standardized tests that the "Big Prep" companies churn out. Every time a student uses these alternative, tactile methods to secure a higher score, it proves that good old-fashioned hard work pays off. Plus, your practice helps us continue funding educational charities across the globe, so we are thrilled to be part of your study routine.

Now that you've cleared the paper scraps off the kitchen table, it's time to put that new spatial intuition to the test. Once you know how these shapes fold in the real world, doing it in your head during the exam becomes second nature.

Ready for the next step? We've put together a full set of practice questions to help you lock in these skills. You don't need to spend a fortune on some overhyped digital app from the Big Prep companies to ace this—just a bit of dedication and the right tools.

Head over to our Spatial Ability Practice Questions to keep the momentum going.

https://test-preparation.ca/spatial-ability-practice-questions/

And remember, every time you use our materials, you're not just securing a better score for yourself—you're helping us support educational charities around the globe. It's a win-win.

Keep up the great work.