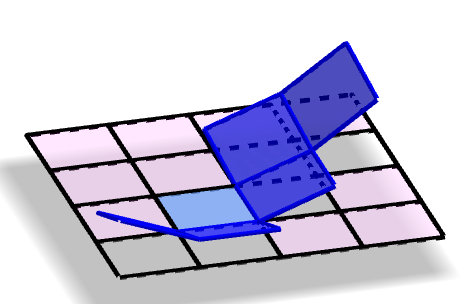
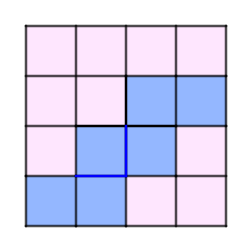
Exploration on Nets of a Cube



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| **Design Rationale** |
| * Allow students to understand that a cube can be folded from different nets * Students learn to explore systematically and verify their guesses by testing * **Computational thinking** skills could be developed |

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| **Materials** |
| * Pieces of square paper * A pair of scissors |

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| **Procedure** |
| * Make 16 identical small squares by folding * Colour 6 connected squares to make a net * Cut and try to test if the potential net is valid or not * Record the result * Try to identify condition(s) for a valid net |

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| **Remarks for Teachers** |
| * Encourage students to share among themselves * May introduce some competition elements to increase student engagement * Ask students to make a plan to explore different possibilities  If they can’t, give some examples and allow them to further explore * Even an invalid net is valuable for figuring out why it doesn’t work |

Exploration on Nets of a Cube (Record Sheet)

Experiment Record

1. Shade or colour to show the net
2. If it is a valid net, give a tick (✓)

|  |  |  |
| --- | --- | --- |
| ✓ |  |  |
|  |  |  |

Can you think of some rule(s) for a valid or invalid net?

Do you have other observations or opinions?