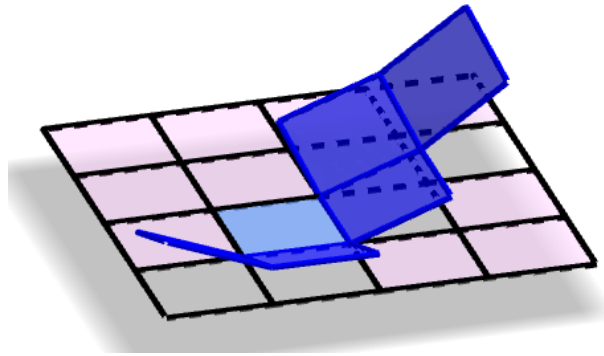
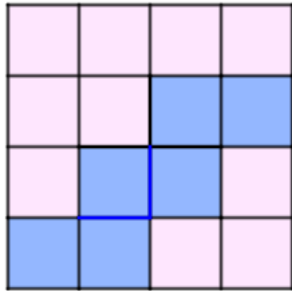


# Exploration on Nets of a Cube



## 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

## Materials

- Pieces of square paper
- A pair of scissors

## 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

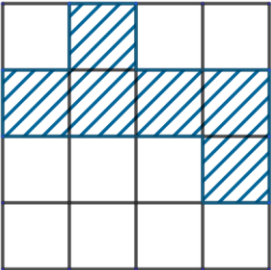
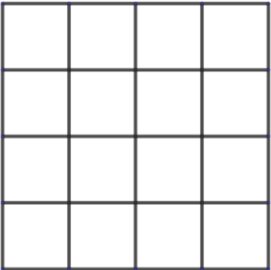
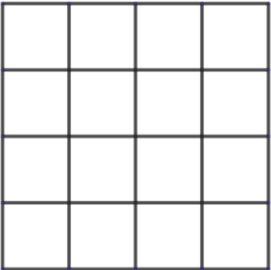
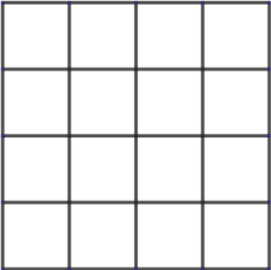
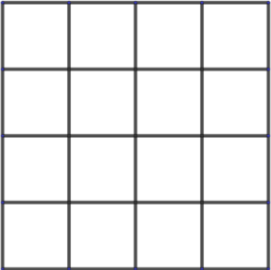
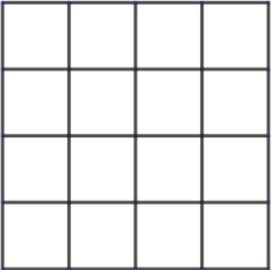
## Remarks for Teachers

- 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?