

Hexagonal Tessellating Tables

Designed by David Mitchell

Hexagonal Tessellating Tables are tiles on legs that can easily be folded from DIN or US letter size rectangles. Because of their simplicity they are ideal for folding as a group project.

The inspiration for this design came from the octagonal tessellating table designed by Paul Jackson.



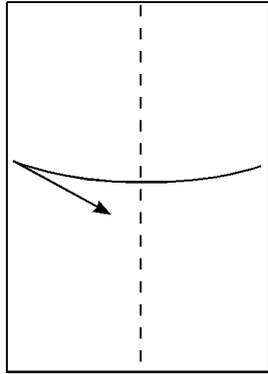
The advantage in using tables instead of flat tiles is that it avoids the wonkiness inherent in laying anything other than very basic folded tiles on a flat surface.

Hexagonal Tessellating Tables were designed in 2020.

These designs can be folded from any kind of paper but, for the sake of clarity, in these diagrams, I have shown one side of the paper white and the other side shaded. The white side is not visible when the design is finished.

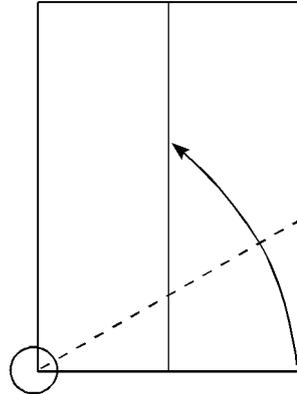
You will need one rectangle of paper for each tile. The ideal size to use is A4 or US letter size paper cut into quarters.

1



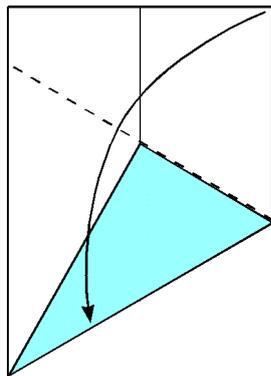
1. Fold in half edge to edge, then unfold.

2



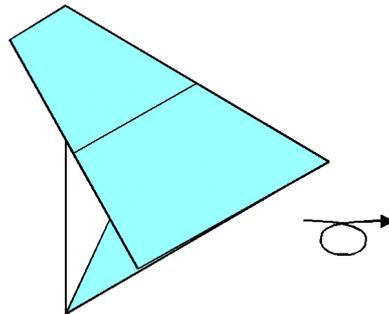
2. Fold the bottom right corner onto the vertical crease making sure the crease starts exactly from the bottom left corner which becomes sharp.

3



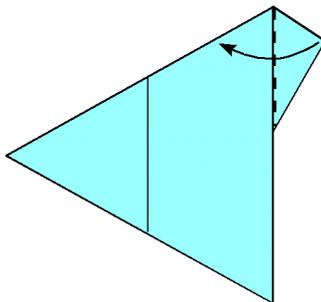
3. Fold the right edge onto the bottom sloping edge.

4



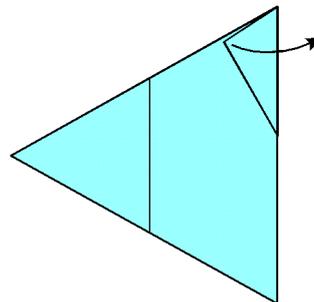
4. Turn over sideways.

5



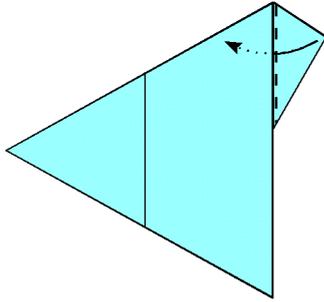
5. Fold the right point inwards along the line of the right edge of the front layer.

6

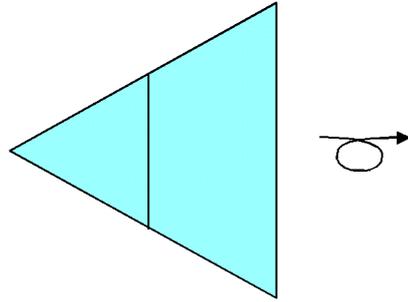


6. Undo the fold made in step 5.

7



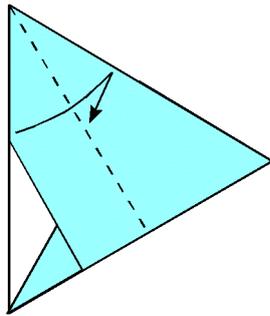
8



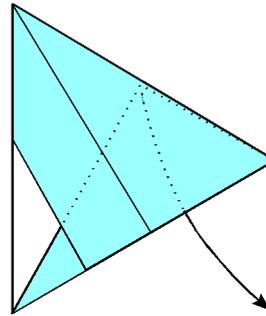
7. Remake fold 5 in between the other layers. Steps 6 and 7 are not essential to the design but following them produces a cleaner result.

8. Turn over sideways.

9



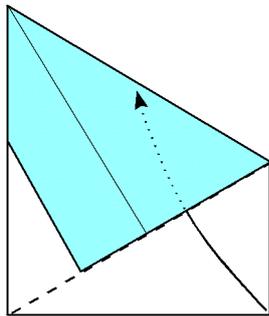
10



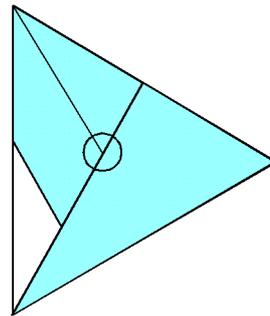
9. Fold the left edge of the top layer onto the sloping top edge, then unfold.

10. Pull out the middle layer.

11



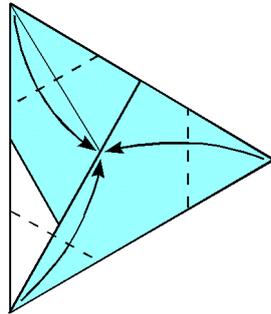
12



11. Fold the paper you just pulled out back on top of the other layers.

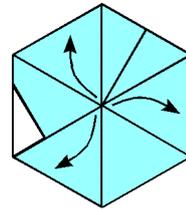
12. The point where the sloping top edge of the new front layer and the crease made in step 9 intersect is the centre of the design.

13



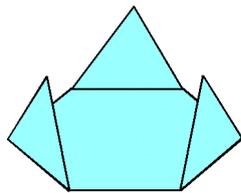
13. Fold all three corners into the centre.

14



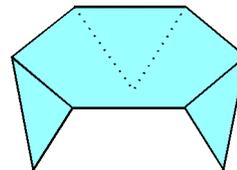
14. Lift all three front flaps up at right angles.

15



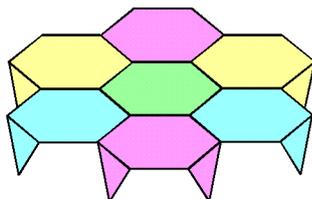
15. Turn over and stand upright on a flat surface.

16



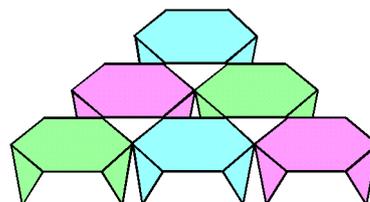
16. Your Hexagonal Tessellating Table is finished. Make lots.

17



17. Hexagonal Tessellating Tables will go together to form a honeycomb tessellation like this. You will notice that the tables fit together best when the legs of one table are next to the gap in between the legs of its neighbours. Arranging the tables in this way means it is less important that the legs are exactly at right angles to the table top.

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18. Hexagonal Tessellating Tables can also be arranged like this.

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