30 Piece Ball

Based on a design by Tomoko Fuse
see pp42-45 Neat Objects in Origami
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1. Use white A4 printer paper.
   Fold two sheets in half

2. Insert one inside the other.

3. Precrease, then open up

4. Cut along the crease lines then discard the shaded areas. This method obtains uncreased squares

5. 

6. 

7. Fold a 30 degree crease allowing the back layers to come forward

8. 

9. Turn the upper layer behind to return to step 8

10. 

Repeat steps 8-10 on the left hand side.

open up to step 7.

Valley folds

reverse folds

reinforce existing creases and add some new ones.

unit complete: make 30 in all.
Method of connecting 2 units: the shaded area fits into the pocket of the next unit.

A third unit is added

5 units connected: they form a sunken pentagonal shape in the centre.

Now continue adding the remaining units to complete the ball, which is based on a dodecahedron (12 pentagon faced solid)