Supporting Information

Zhang *et al.* 10.1073/pnas.0803841105

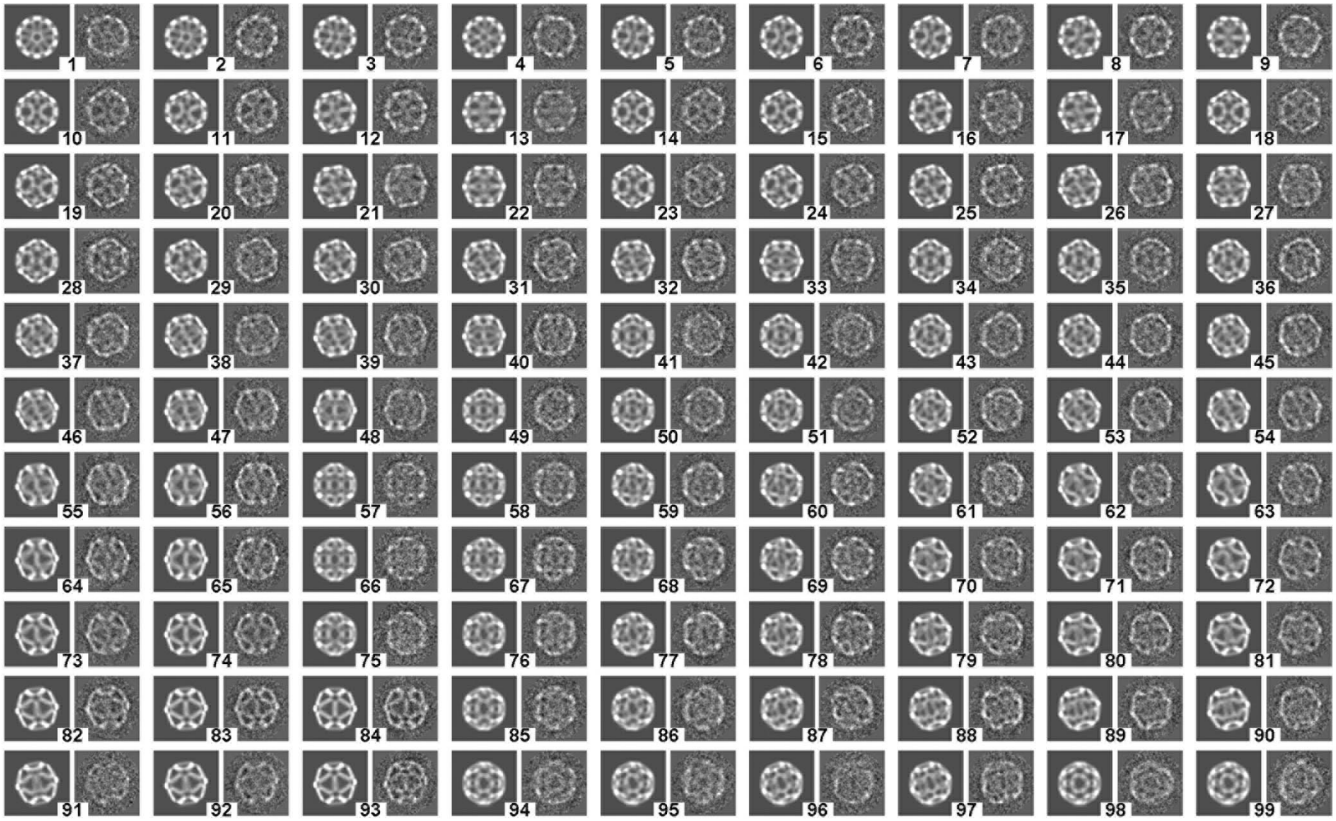

Fig. S1. Comparison of the class average of particle images with similar views and the corresponding computer-generated model projections. For each pair, the projection is on the left and the class average is on the right.

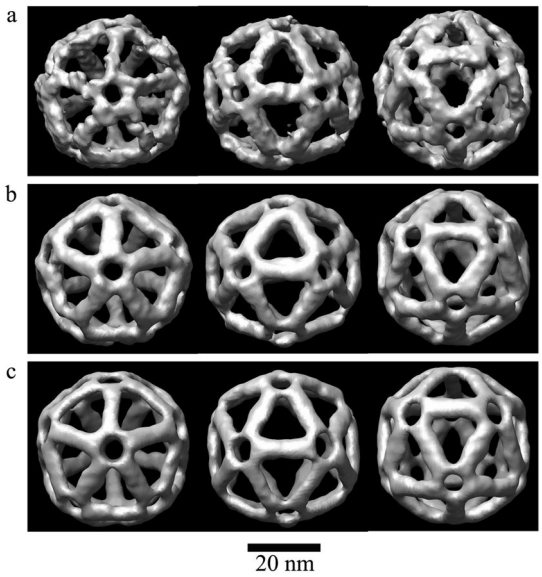

Fig. S2. Control reconstruction of the DNA icosahedron images with the symmetry relaxed from icosahedral symmetry to no symmetry (*a*), C3 symmetry (3 fold rotational symmetry) (*b*), and C5 symmetry (5 fold rotational symmetry) (*c*). For each case, views from three different directions are shown. All these reconstructions showed that the particle structure has the higher icosahedral symmetry.

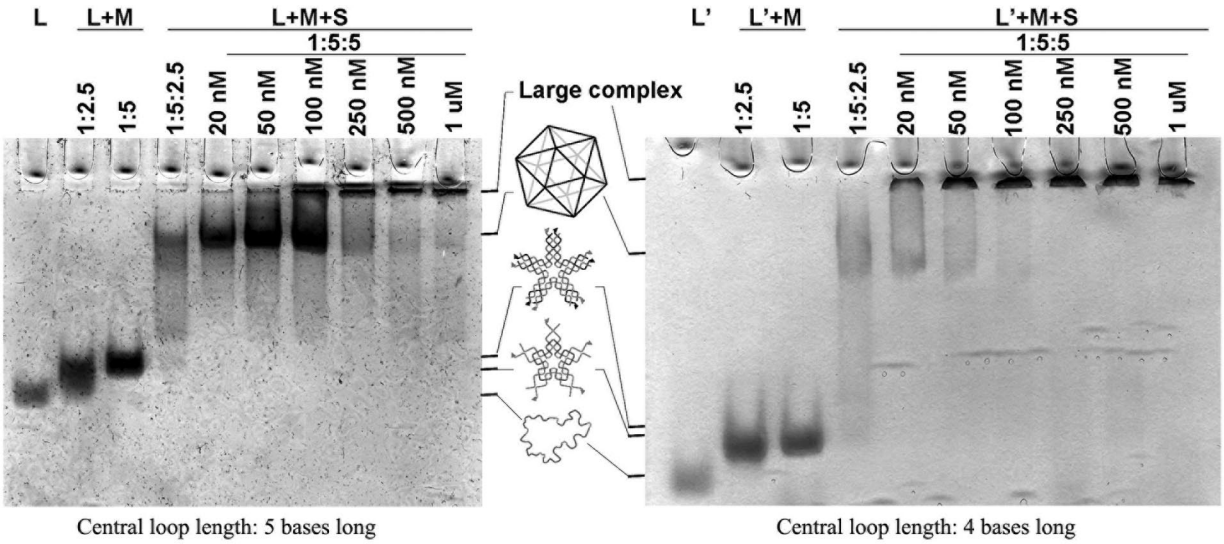

Fig. S3. Native PAGE (2.5%) analysis of the concentration dependence of self-assembly of DNA five-point-star tiles. (*Left*) For five-point-star tiles with 5-base-long, central, single-stranded loops. When DNA concentration is between 20 and 100 nM, icosahedra are the main products; when DNA concentration is 250 nM and higher, large assemblies form and cannot penetrate into 2.5% PAGE matrix. (*Right*) With 4-base-long, central, single-stranded loops, DNA tiles dominantly assemble into large complexes at concentration as low as 20 nM.

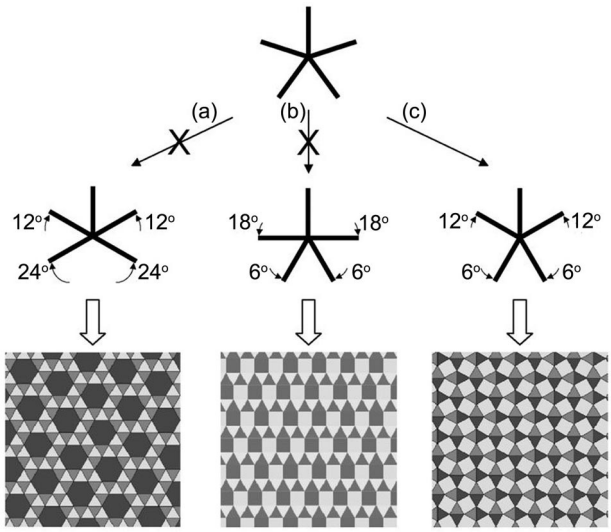

Fig. S4. The five-point-star DNA tiles could, in principle, deform in-plane in three different ways to assemble into three different lattices. However, only the path (c) is experimentally observed. The arrows and the numbers indicate the bending directions and extent of the in-plane bending of the branches.