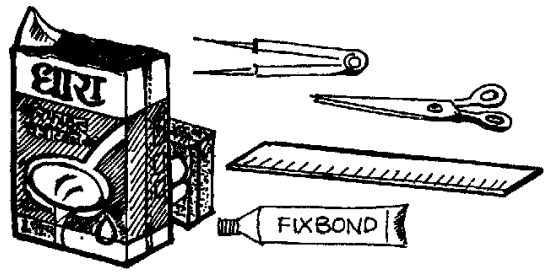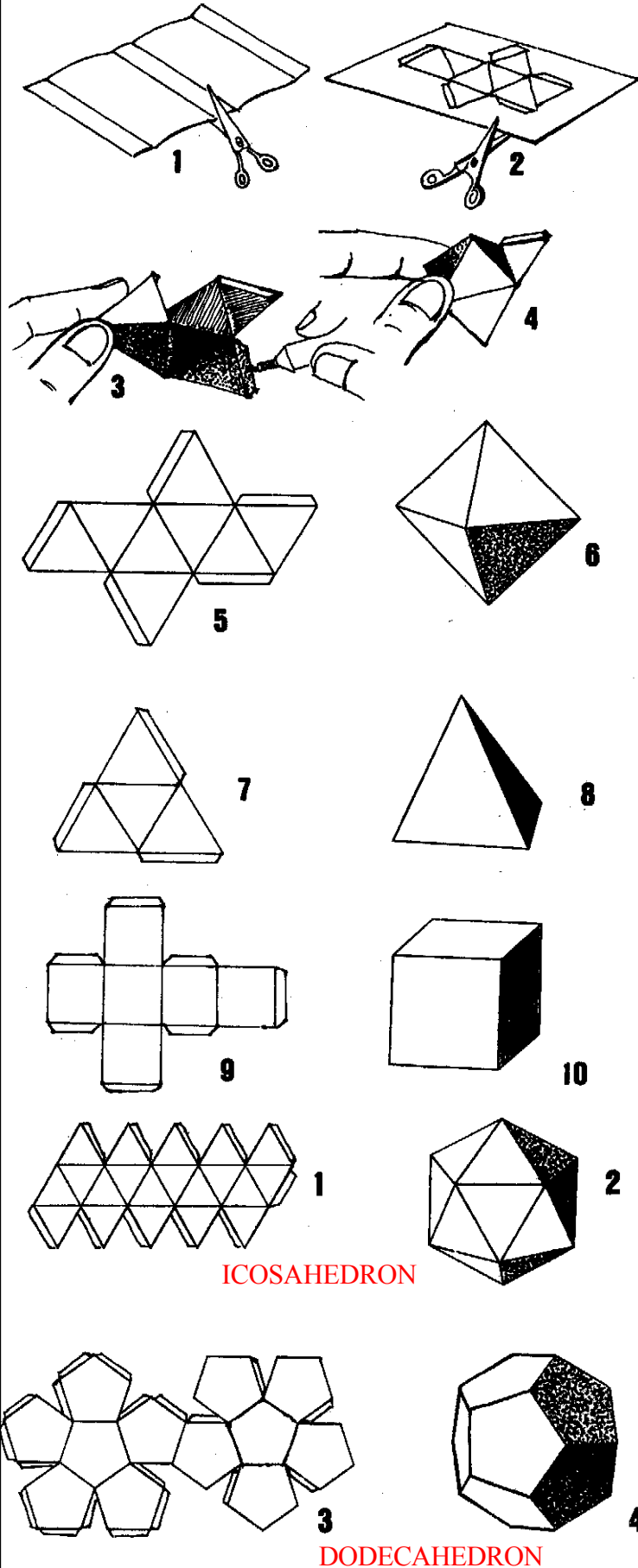# TETRA PACK MODELS

Tetra packs have revolutionized packaging the world over. Now-a-days, cooking oil and several cold drinks are being distributed in tetra packs. After use, the cartons are just thrown away. These cartons are made of composite layers plastic film, aluminum foil and paper fused together. It is very expensive too. An empty 200-ml. carton costs about one rupee. You can make wonderful things with old tetra packs.

Open, clean and straighten a tetra pack Fig (1). Using a divider and a scale mark out a network of eight equilateral triangles (edge length of 2.5-cm). The five little flaps will be glued and will hold the model in shape Fig (2). After cutting the network crease along the edges. Apply adhesive or glue the flaps Fig (3, 4). Fold and stick them to complete the OCTAHEDRON Fig (6). The exact network of the Octahedron is given in Fig (5). Similarly, using network of Fig (9), fold a CUBE Fig (10). The tetra pack material takes sharp crease. The finished silvery models are rigid, waterproof and look almost metallic.

Mark network shown in Fig (1) on the tetra pack sheet and fold it into an elegant 20 faceted ICOSAHEDRON Fig (2). Using the network in Fig (3), make a DODECAHEDRON Fig (4). Thus, all the five regular convex solids - the Platonic solids - the regular Tetrahedron, Hexahedron (cube), Octahedron, Dodecahedron and the Icosahedron can be made from tetra packs. Euler - the famous mathematician discovered a simple relation connecting the numbers of vertices (V), edges (E) and faces (F) of polyhedra. See whether $V + F = E + 2$, holds true for all the above solids.

ICOSAHEDRON

DODECAHEDRON