“Matchstick” Puzzles

Matchstick puzzles became the rage in the 19th century when some match companies started putting them on the backs of matchboxes. By the turn of the century, there were books of matchstick puzzles in print and enthusiasts had accumulated extensive catalogues of puzzles.

These puzzles, which we'll do with toothpicks instead of matches, are good for developing spatial and lateral reasoning skills.

Record your answer(s) for each puzzle as you go along. Many have multiple possible answers.

#1: Arrange 8 toothpicks in the shape of a fish as shown.

![Fish Diagram]

Move toothpicks until the fish is facing some other direction. How many toothpicks did you move? Can you do it by moving fewer toothpicks?

What is the minimum number of toothpicks you need to move to get the fish facing some other direction?

What is the minimum number of toothpicks you need to move to get the fish the opposite direction?
#2: Below, how can you get the cherry outside the glass moving only 2 matches? At the end, the glass may be turned in any direction, but it must be exactly the same shape.