

### Model pieces required for the electron transport chain activity

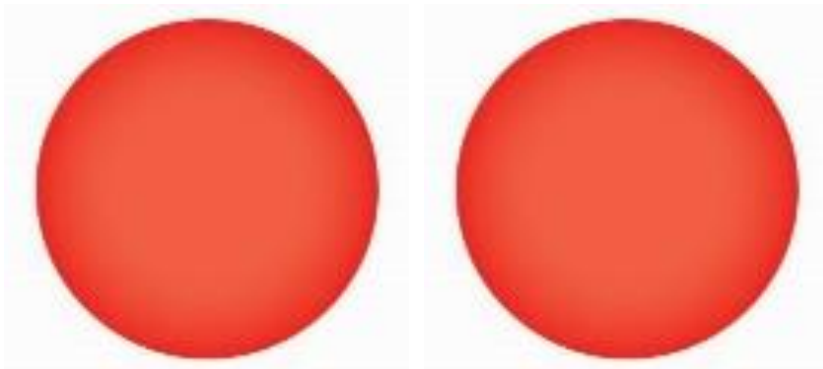
1. 1 x electron transport chain poster
2. 1 x NADH
3. 1 x FADH<sub>2</sub>
4. 4 electrons with Blu Tack on the back
5. 2 x ADP molecules
6. 2 x inorganic phosphate groups with Blu Tack on the back
7. 30 protons
8. 2 x oxygen atoms with Blu Tack on the back

### **Oxygen atoms:**

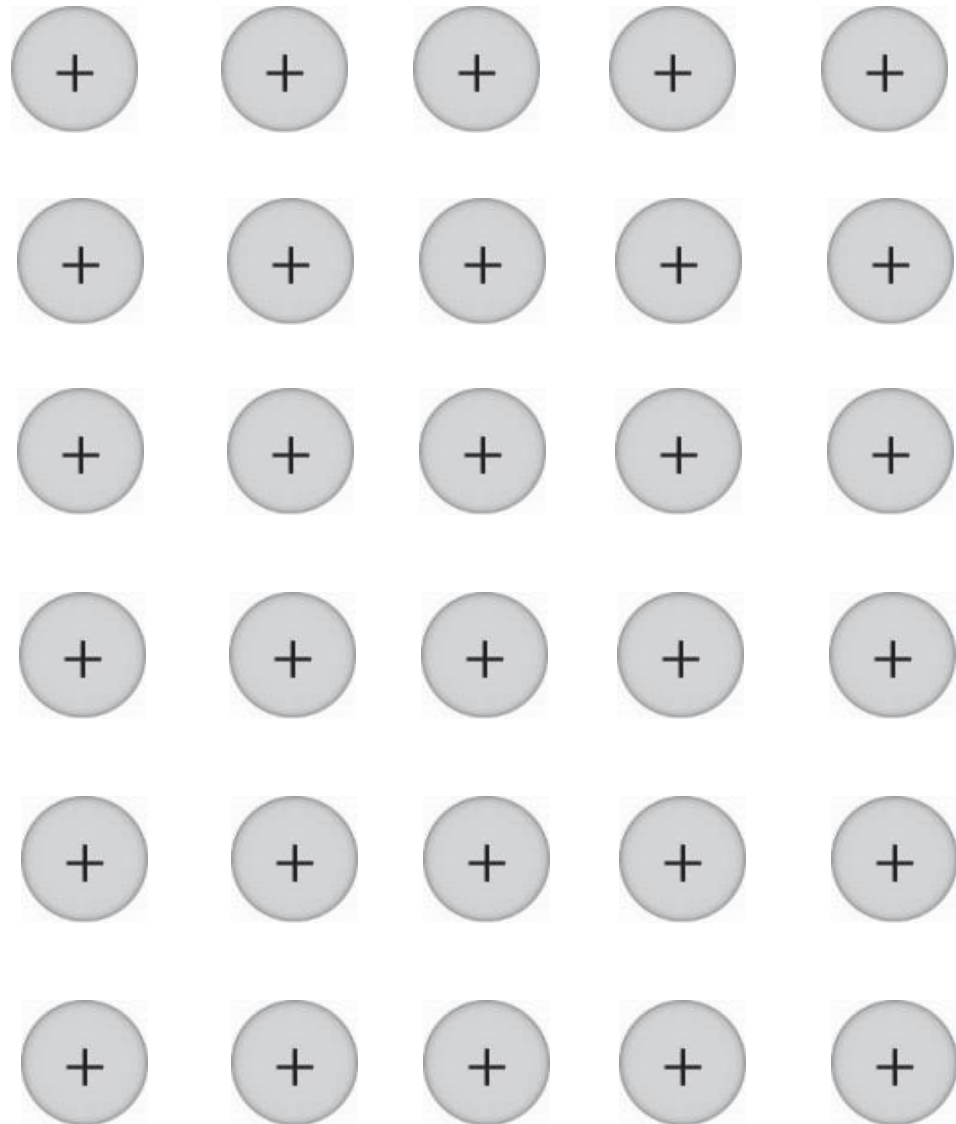
Step 1: Make an oxygen molecule by joining 2 oxygen atoms together using Blu Tack.

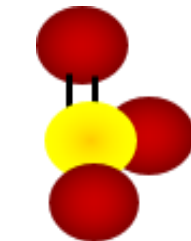
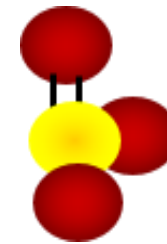
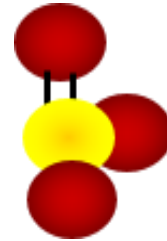
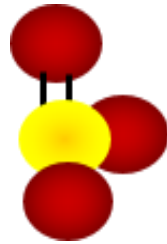
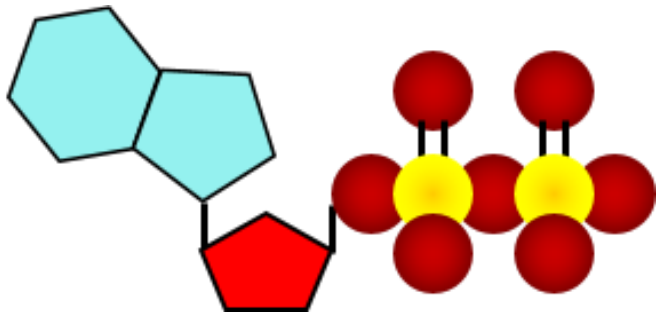
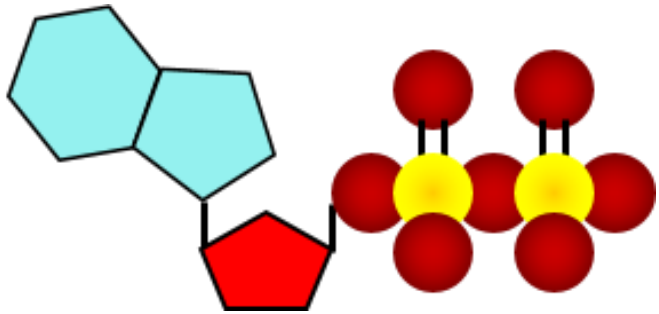
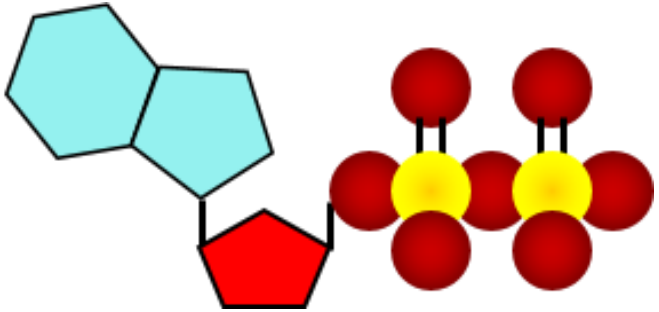
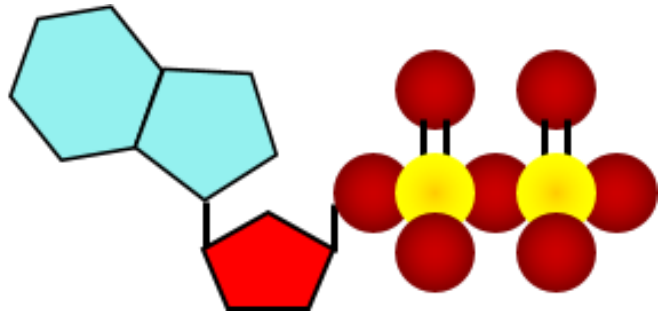
Step 2: Place 2 spots of Blu Tack on the back of each atom in your oxygen molecule.

Step 3: Place oxygen molecule in the designated box in the mitochondrial matrix on your poster



**Protons:** cut out and place 20 in the mitochondrial matrix on your poster and 10 in the intermembrane space on your poster





**Inorganic phosphate**

**groups:** Cut out and place a piece of Blu Tack on the back of each one. Place these in the matrix of your poster near ATP synthase.

**ADP:** Cut out and place ADP molecules in the matrix near ATP synthase.

**Electrons:** Cut out and place a piece of Blu Tack on the back of each one.

**NAD and FAD:** Cut out NAD and FAD and attach 2 electrons to the front of each. They are now loaded shuttles. Place them in the matrix of the mitochondria.

