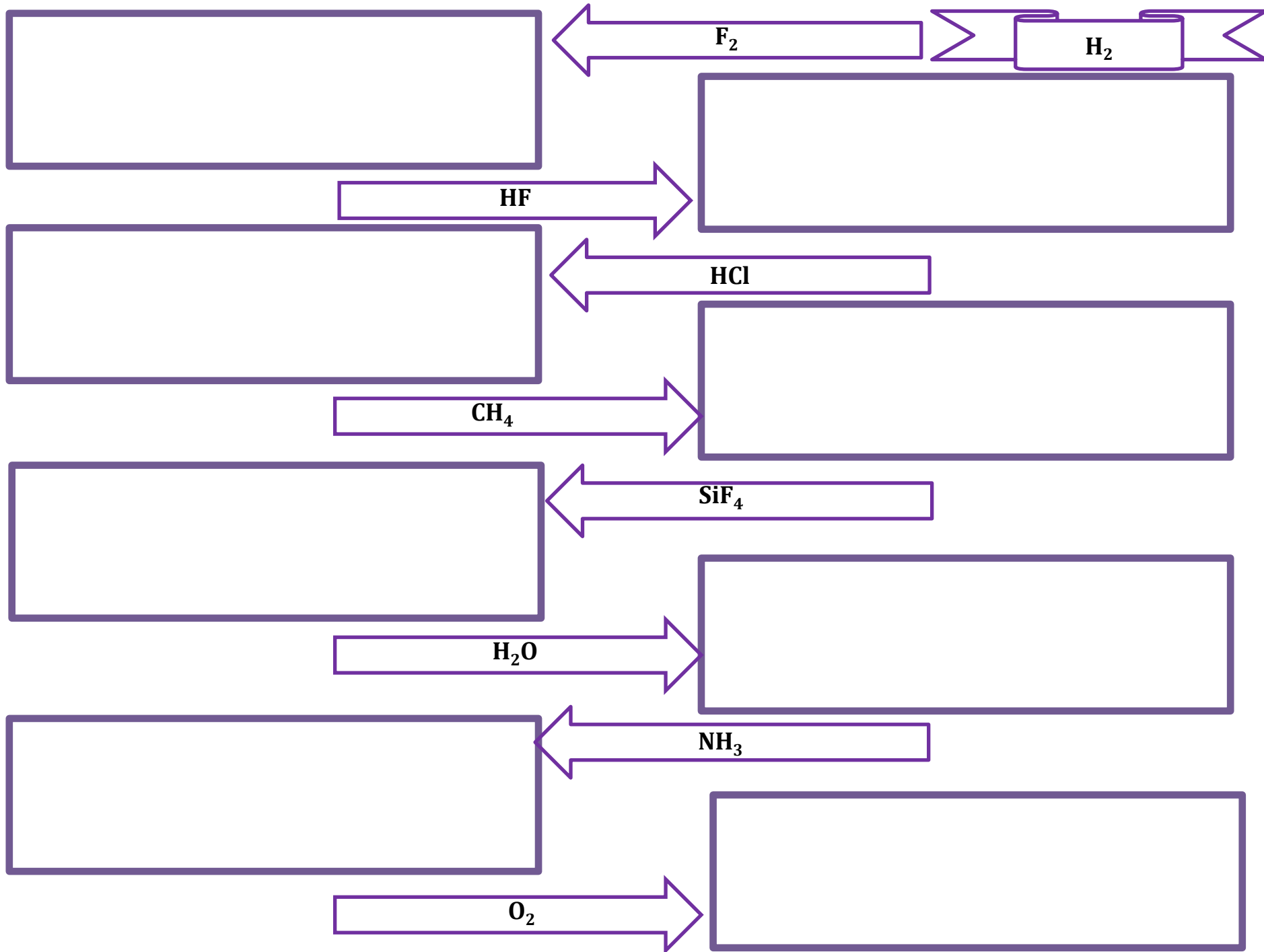
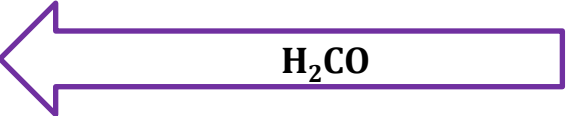
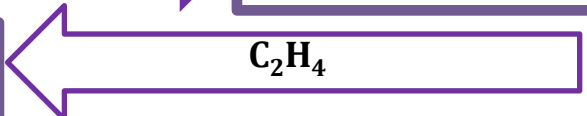
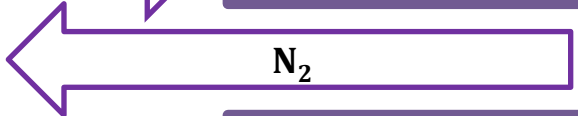
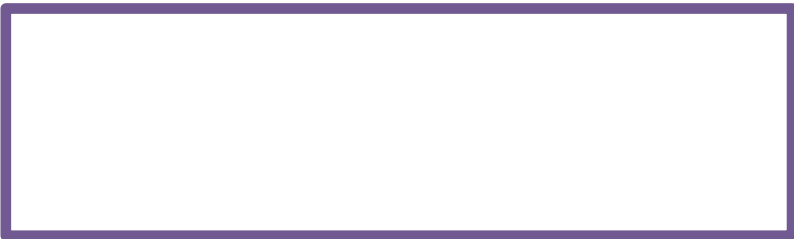
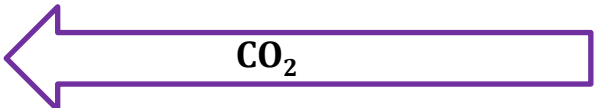


Topic	Covalent bonding : the covalent challenge!	Level	GCSE (or any course for students aged 14-16)
Outcomes	1. Students are able to draw dot and cross diagrams for simple covalent molecules, including double and triple bonds This resource was contributed By Deborah Brown		

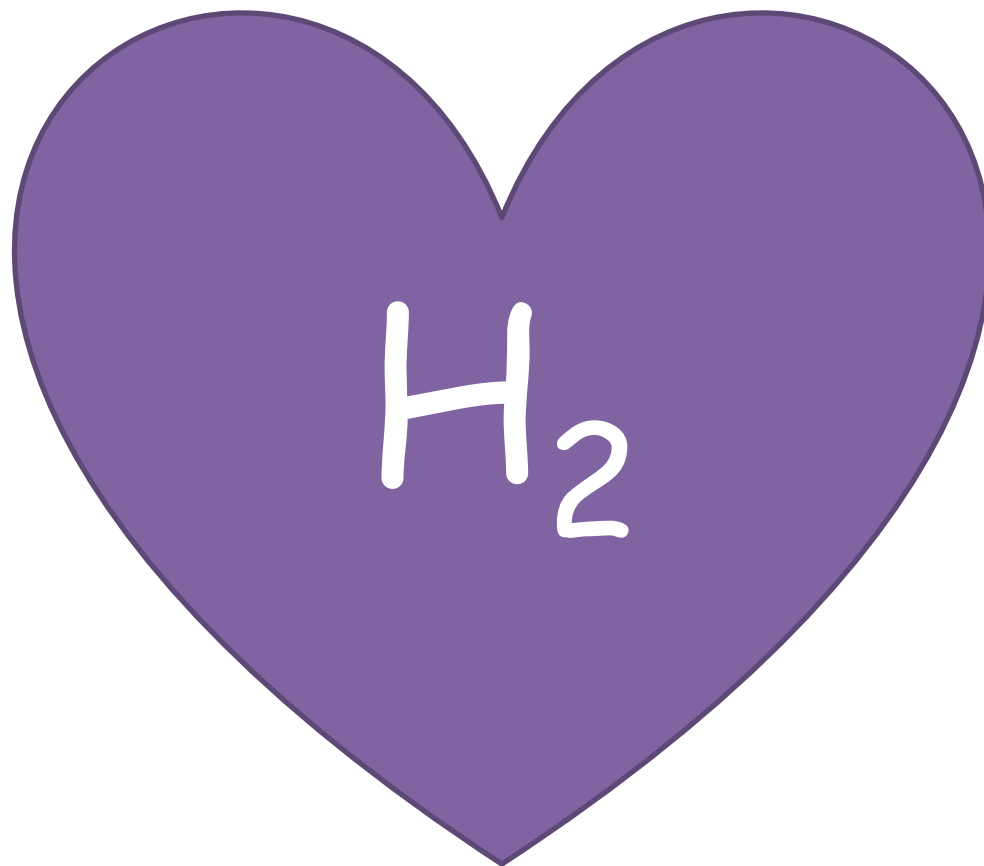
Instructions for teachers: this resource is fantastic, as it allows students to progress at their own rate as they draw dot and cross diagrams for covalent molecules. Start by printing off the slides 5-34 two-sided onto paper. You will need at least two sets depending on your class size. Lay these out around the classroom.

Start by getting students to draw H₂ in their books. When they get this correct they can start the challenge and move around the room to draw dot and cross diagrams of each molecule. They can check to see if they are right by turning over the card to see the correct answer. If they are incorrect, they must correct their drawing. Students then move onto the next molecule until all have been completed.

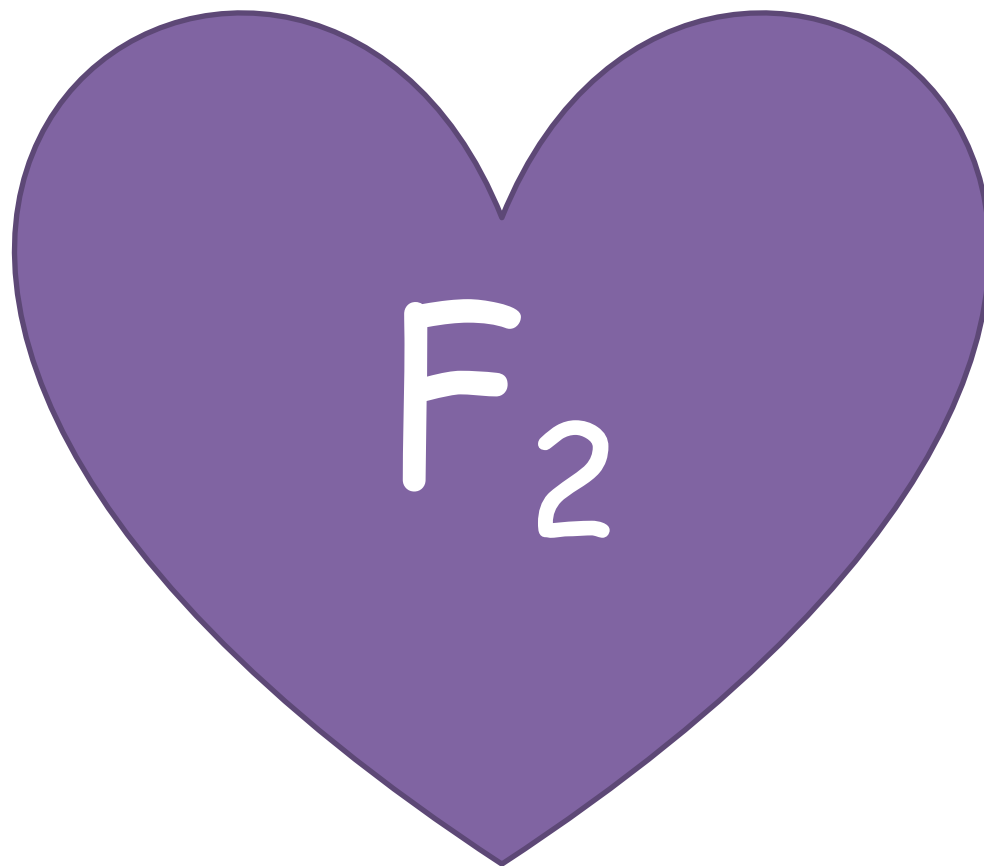




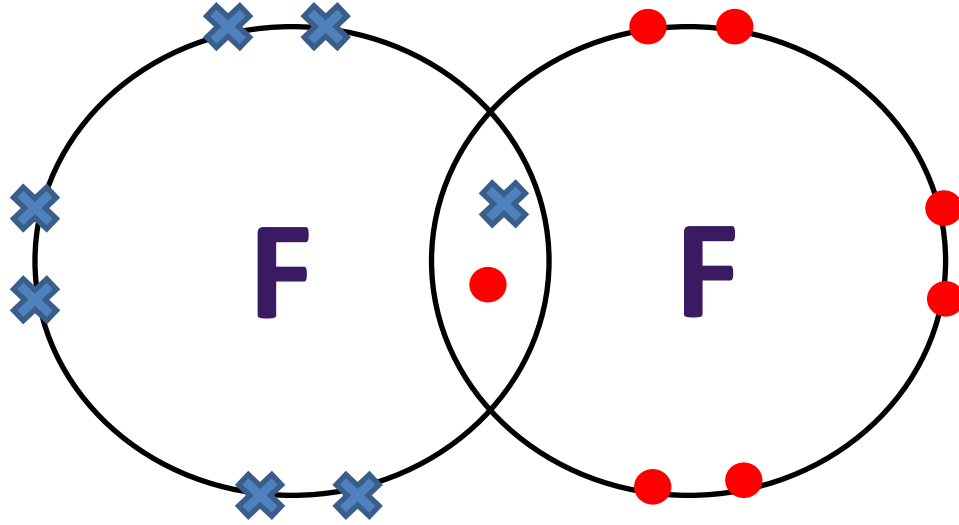
Show teacher



Draw a dot and cross diagram for hydrogen. When you are correct, you can start the covalent challenge!

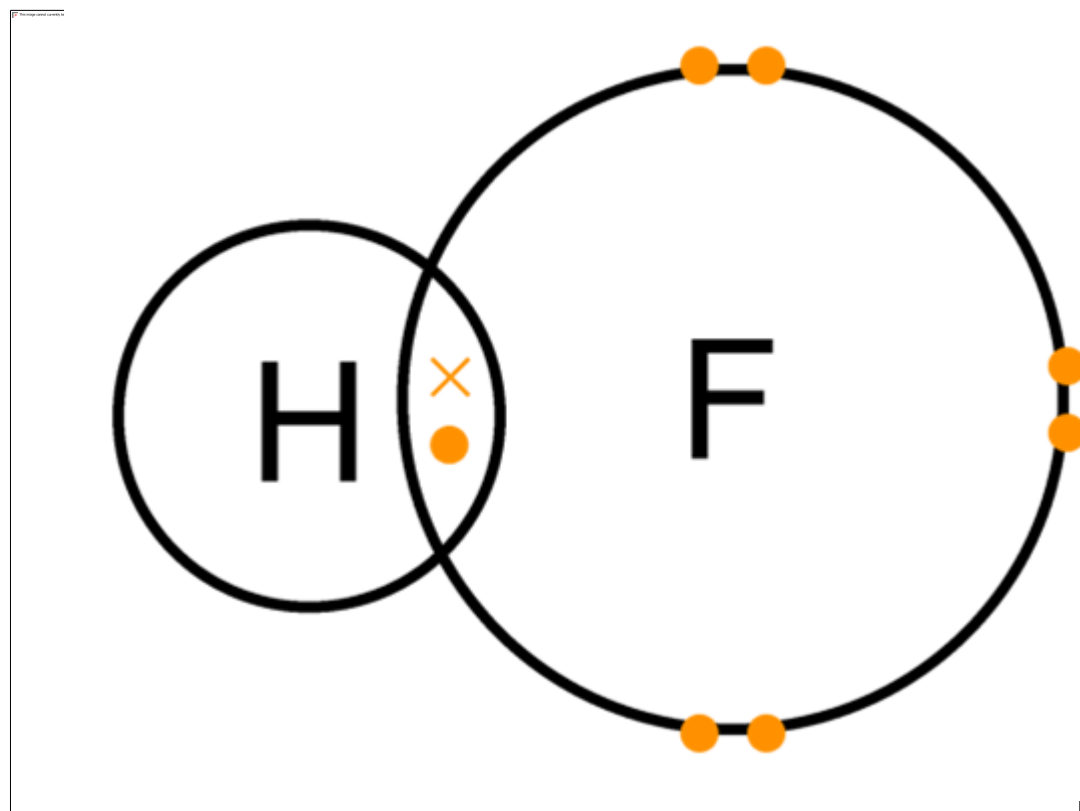


F — F



Go to HF

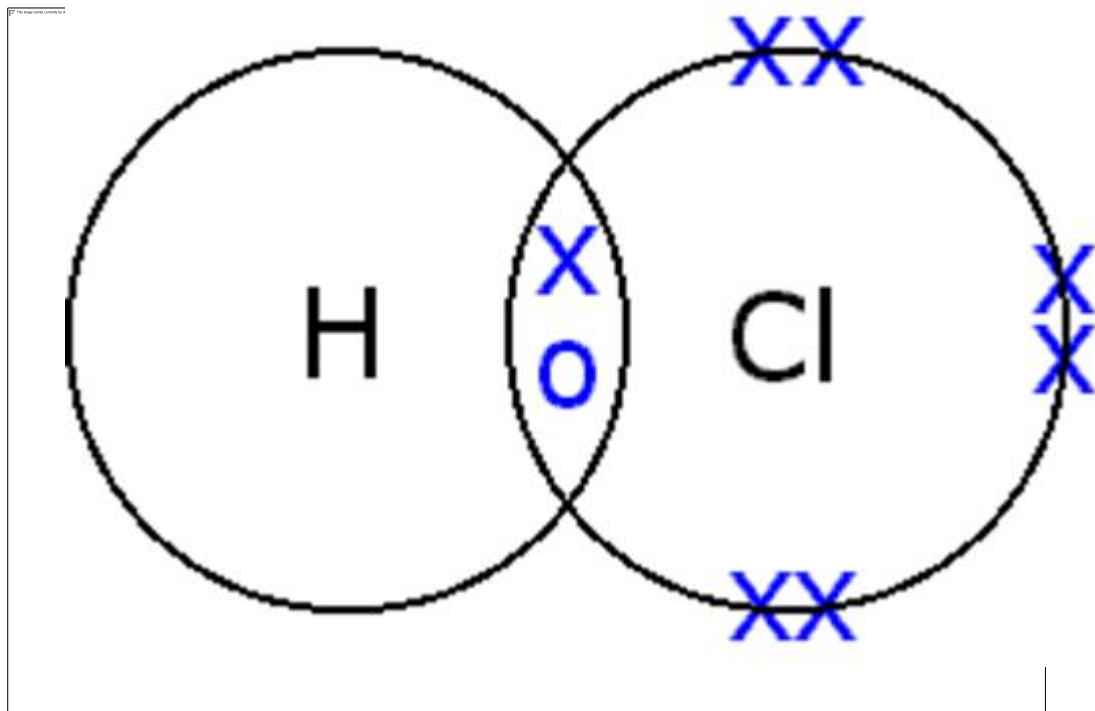




Go to HCl

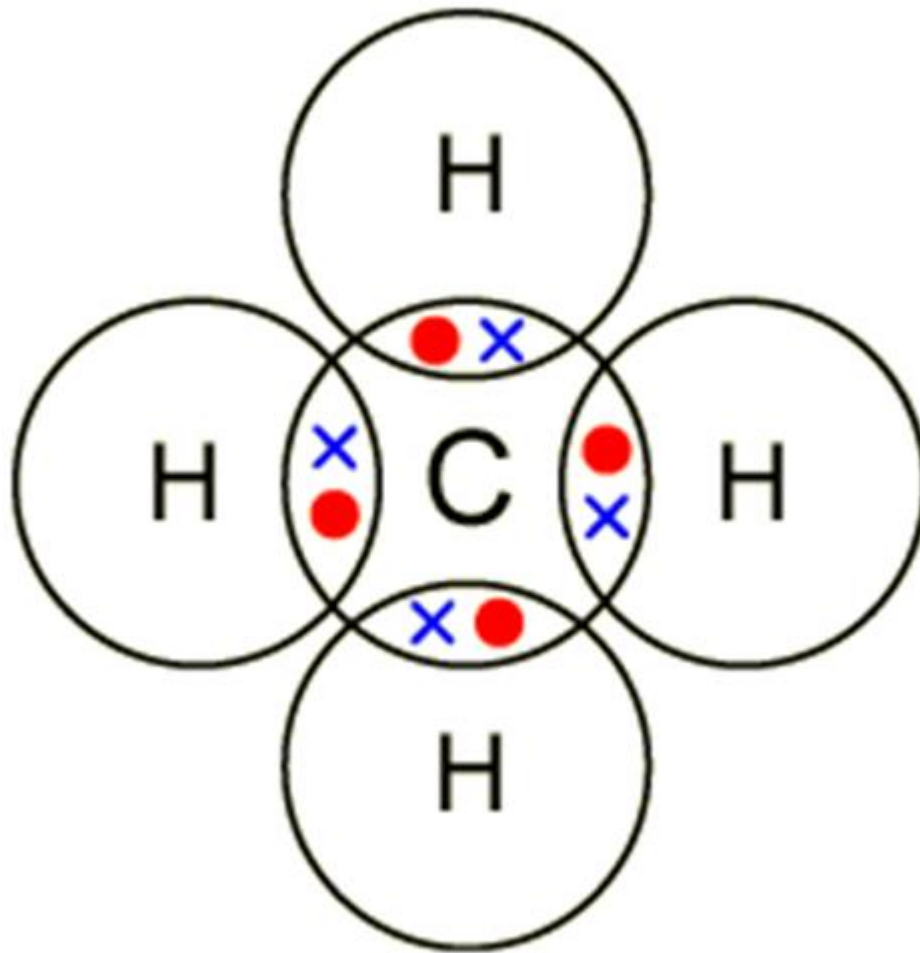


HCI



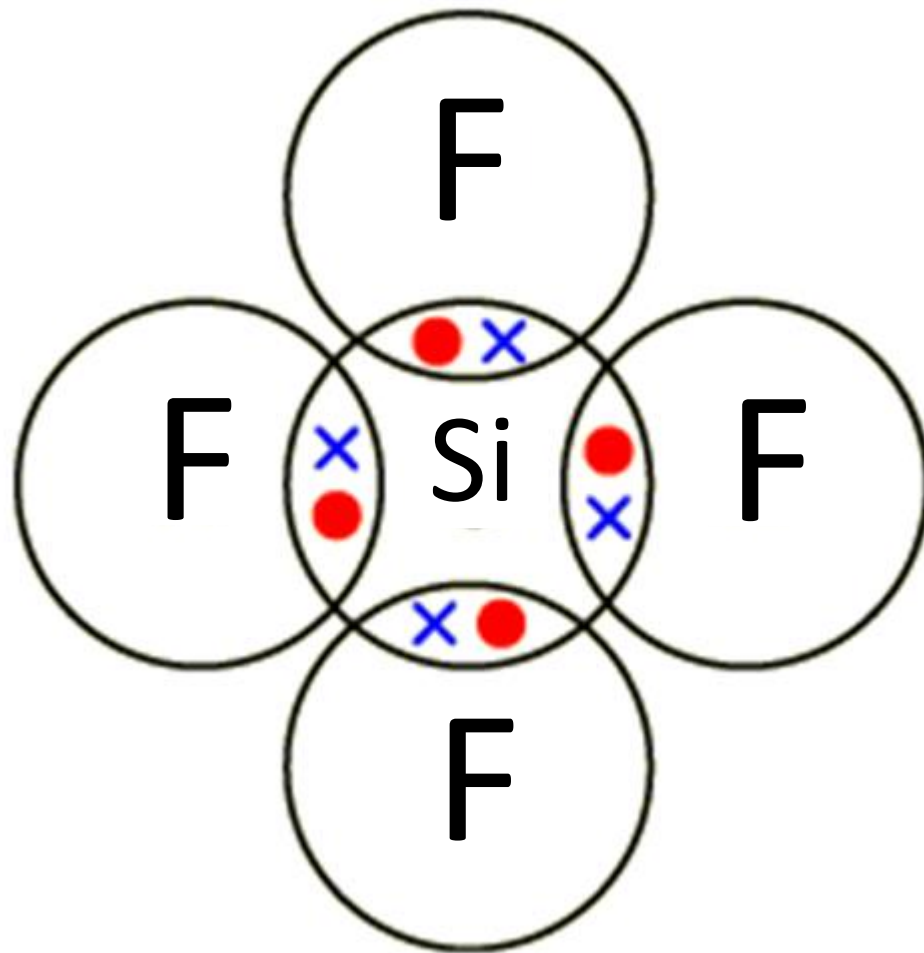
Go to CH₄





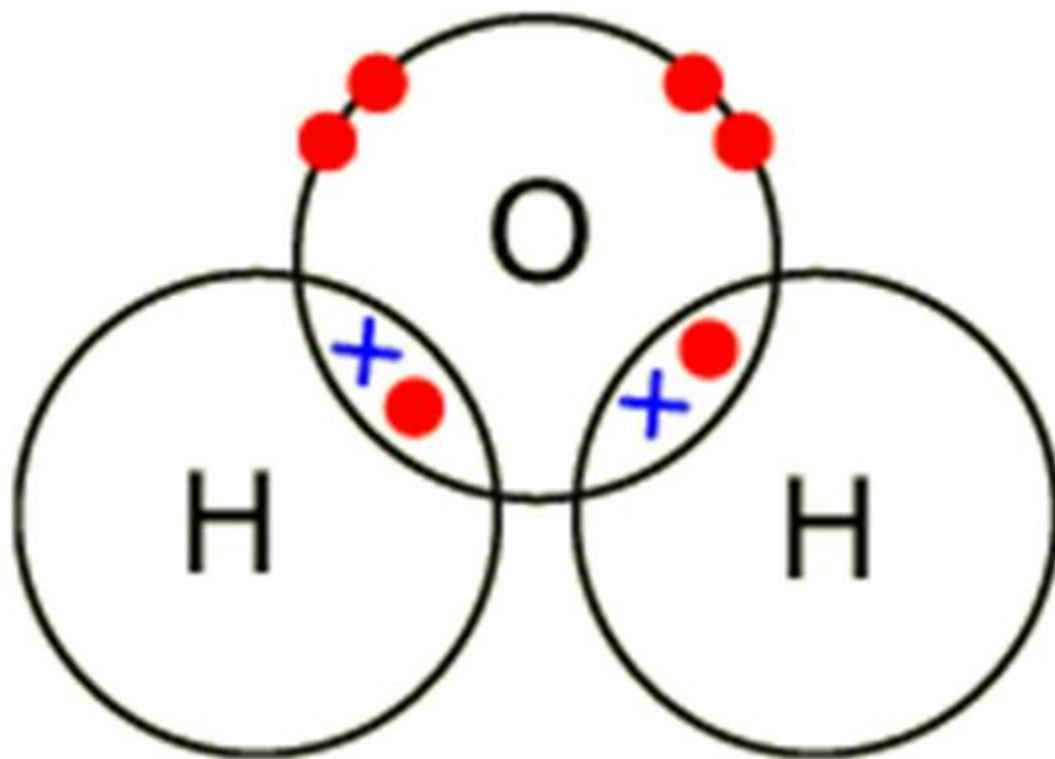
Go to SiF₄





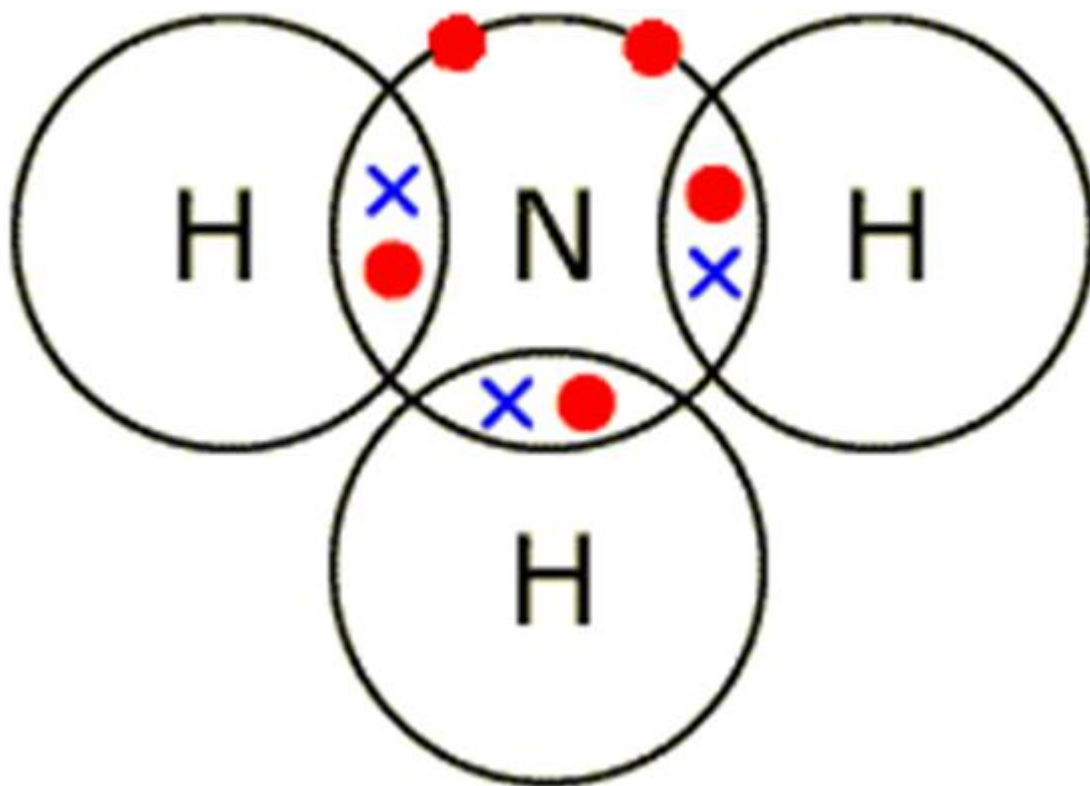
Go to H₂O



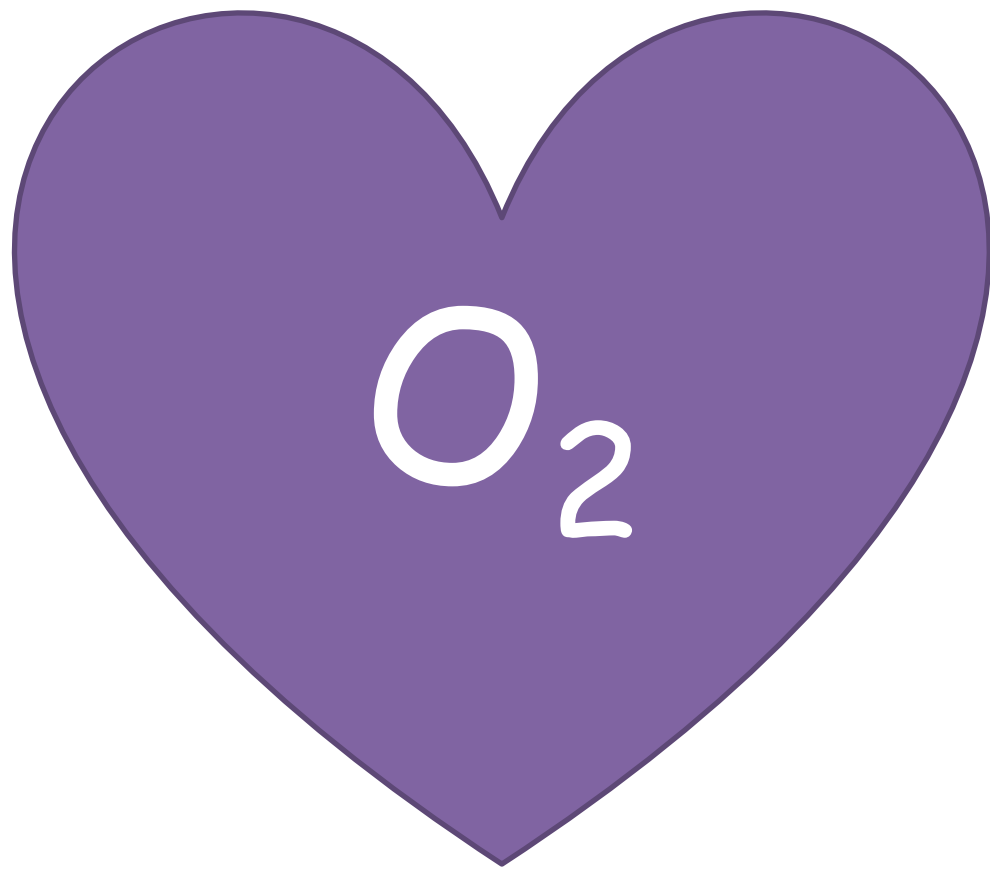


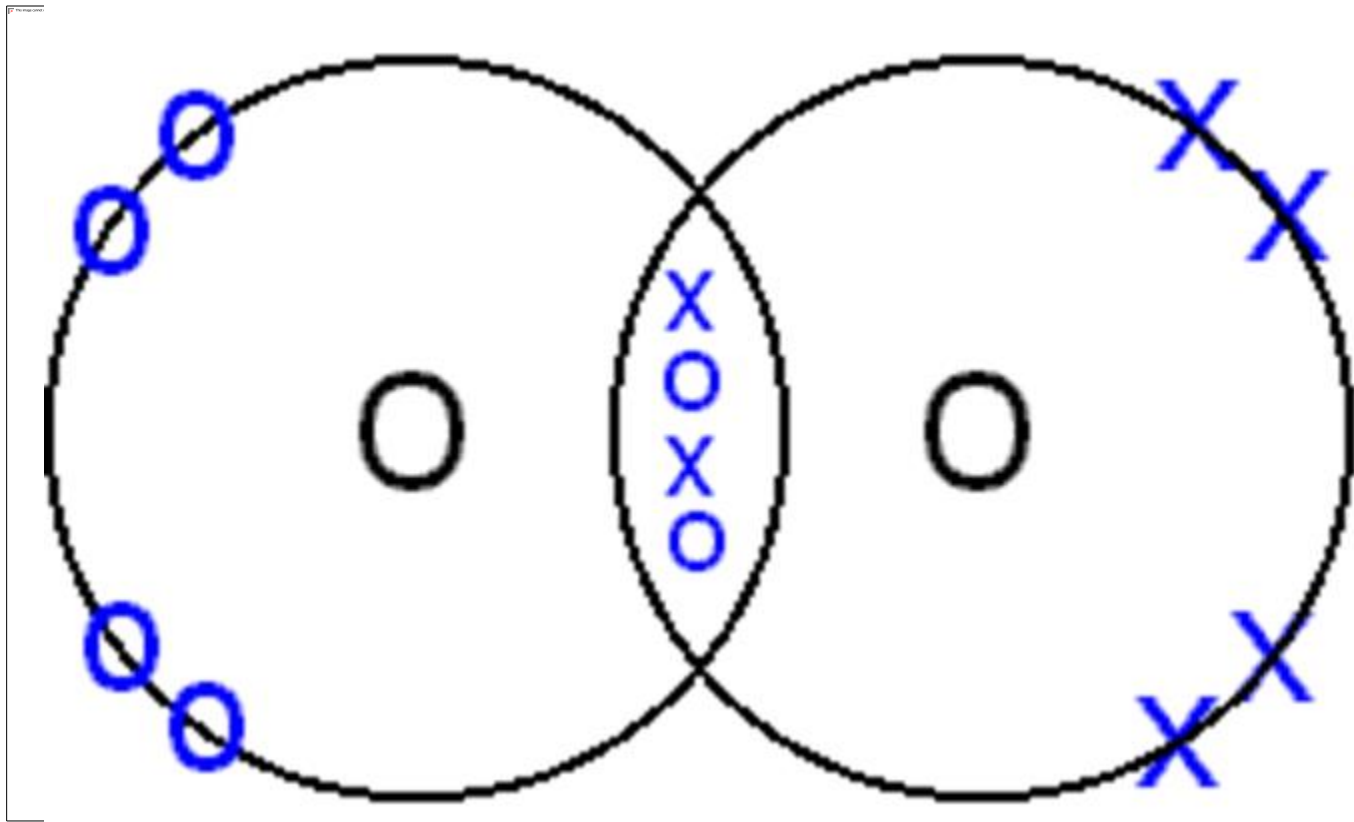
Go to NH₃



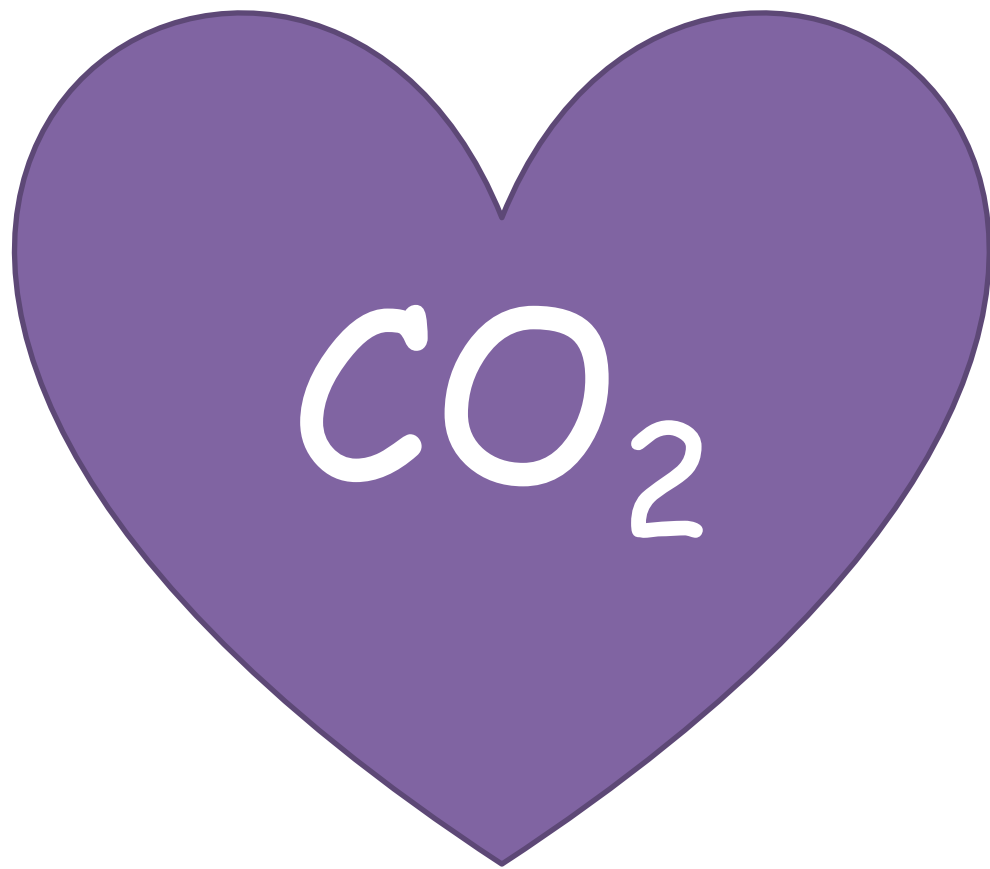


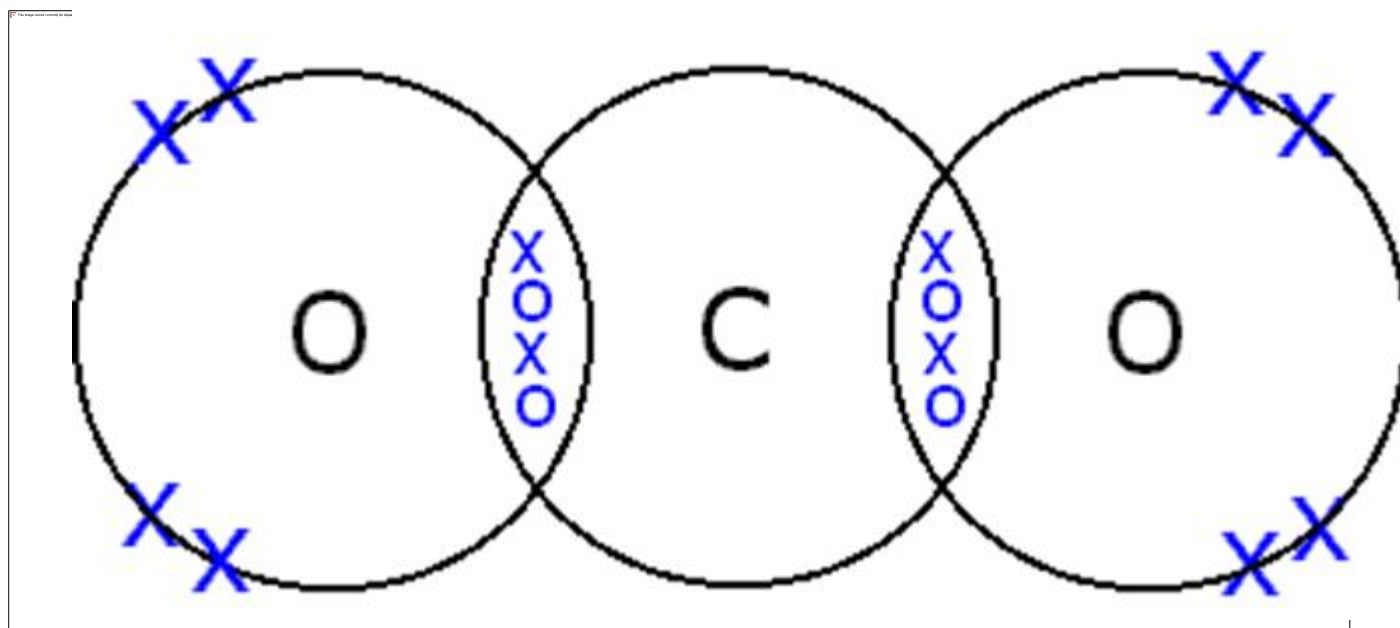
Go to O₂





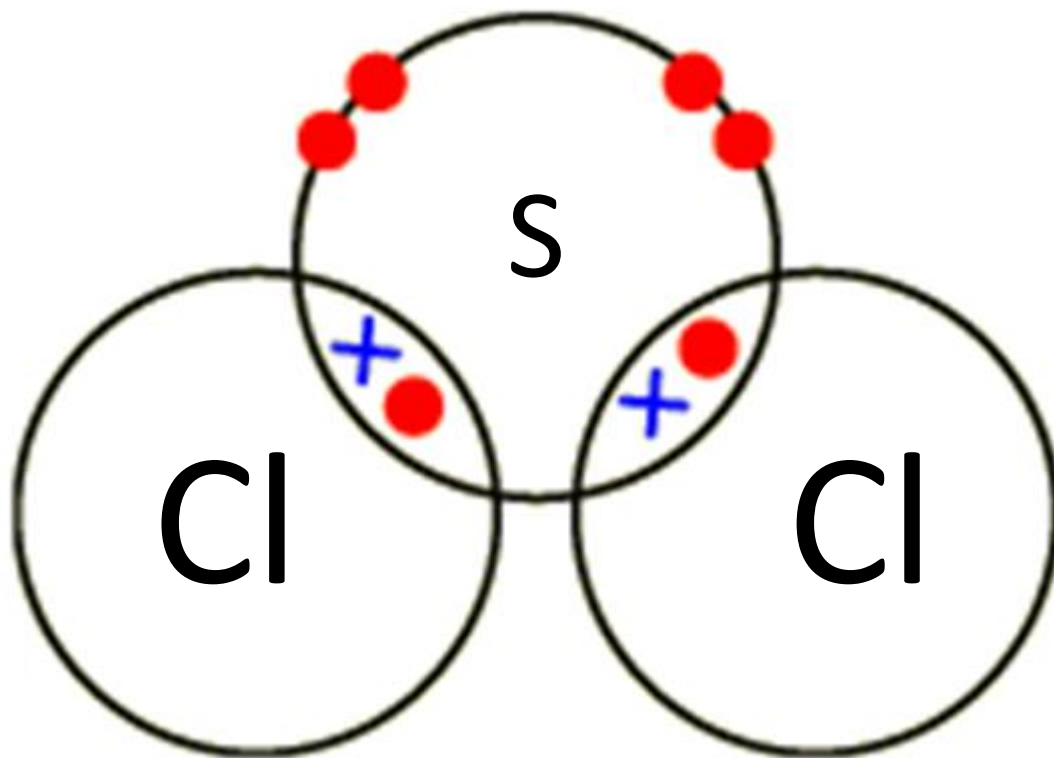
Go to CO_2





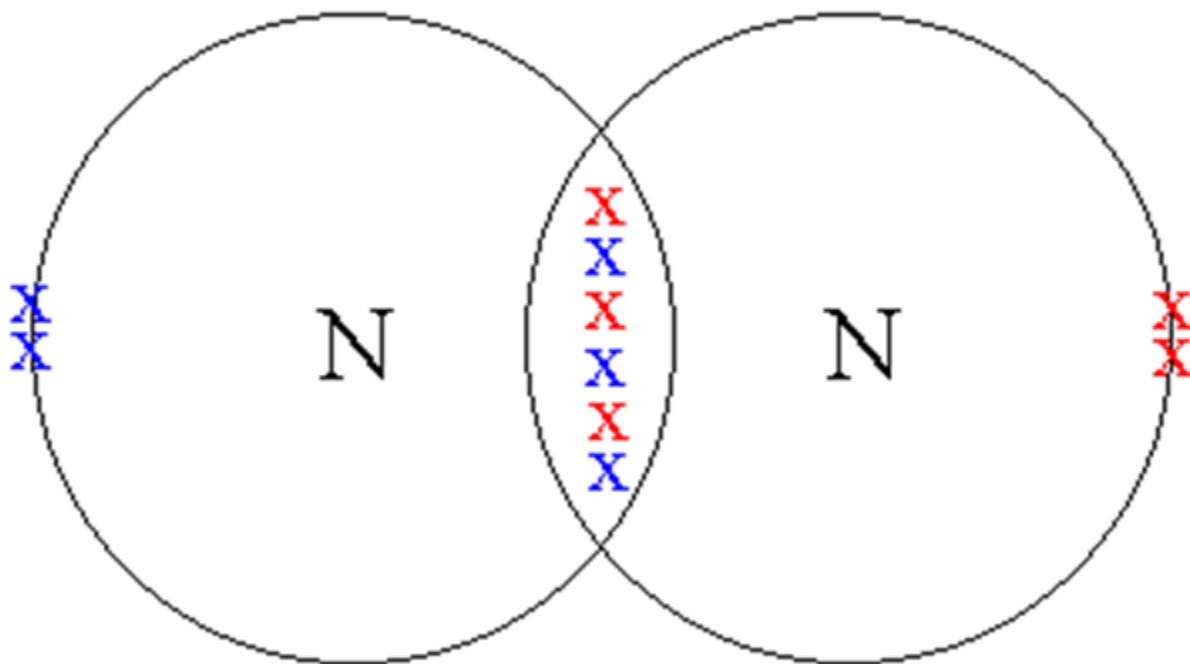
Go to SCl_2



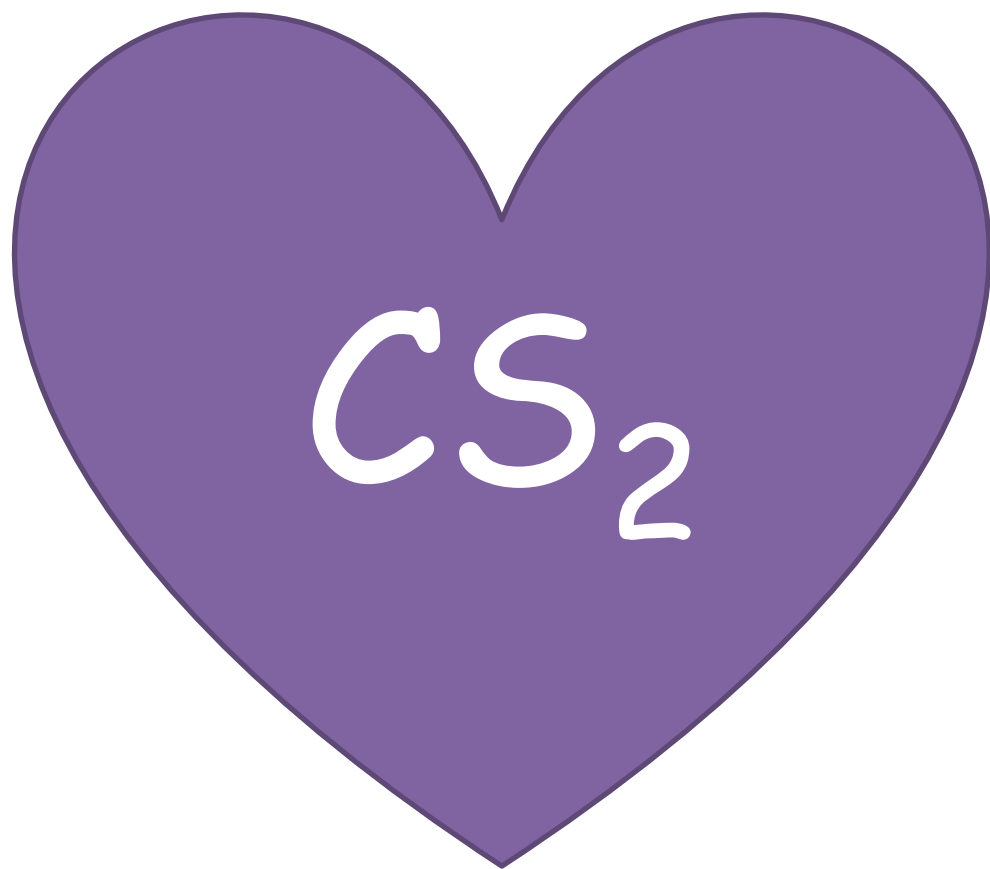


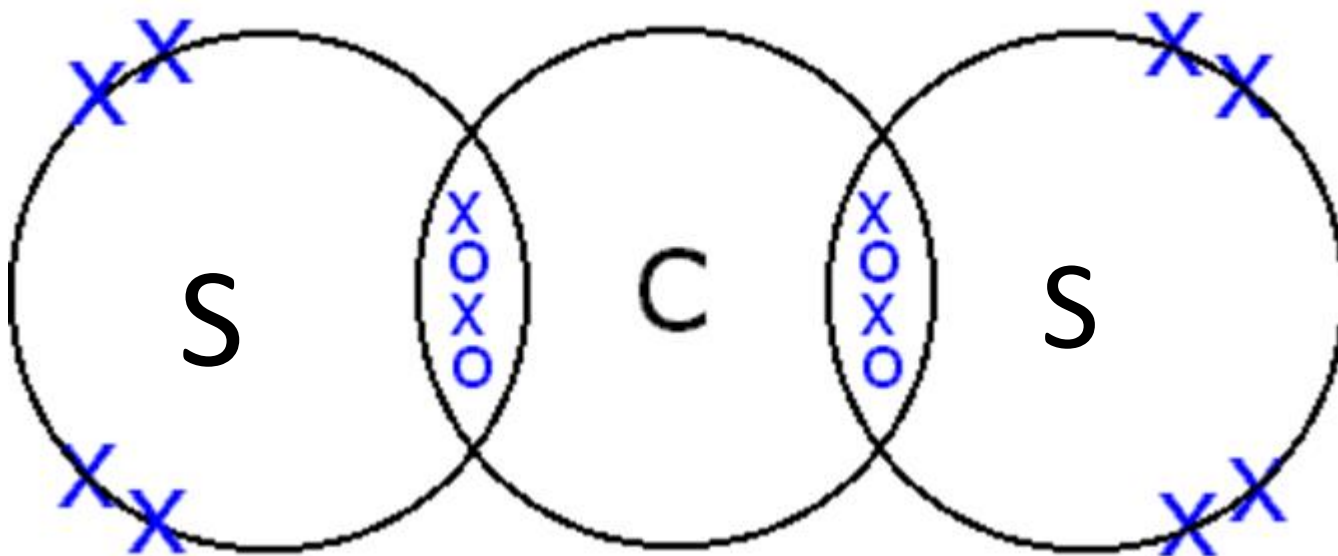
Go to N_2





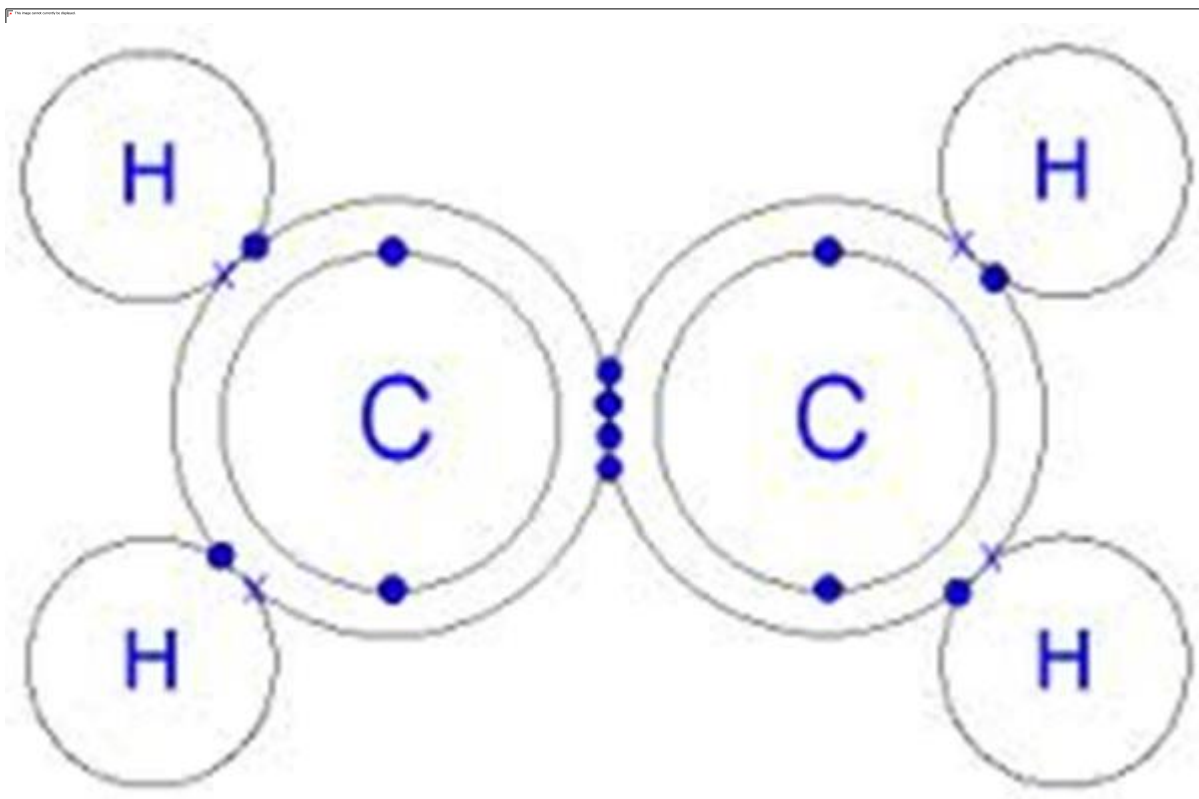
Go to CS_2





Go to C_2H_4

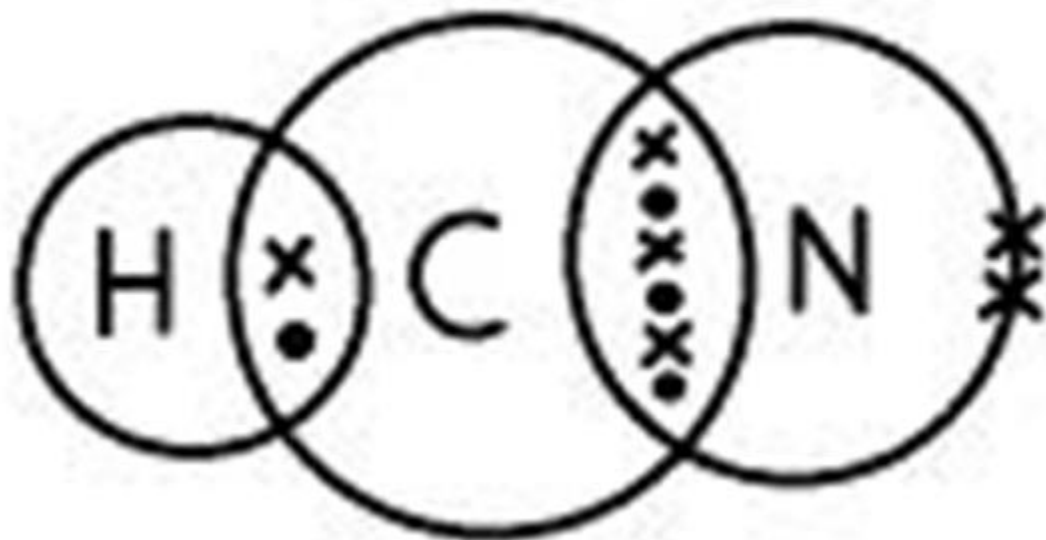




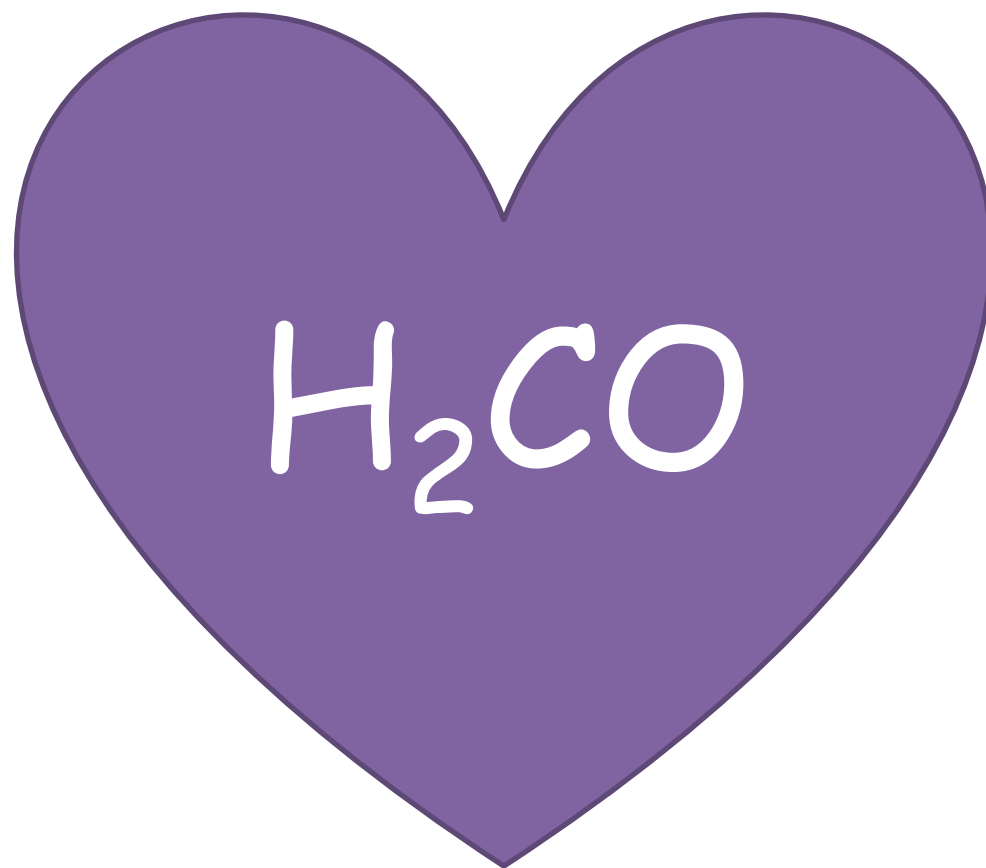
Go to $\text{HC}\equiv\text{N}$



HCN



Go to $\text{H}_2\text{C}=\text{O}$



You are an expert!!

Show your teacher.