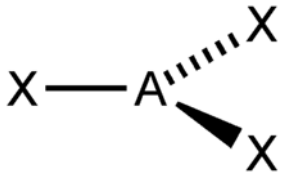
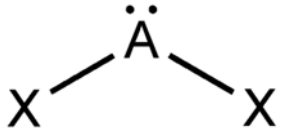
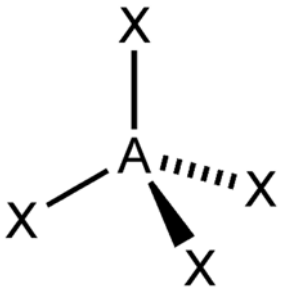
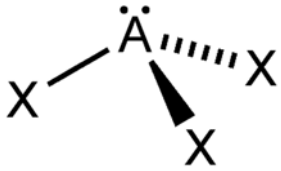
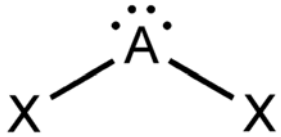
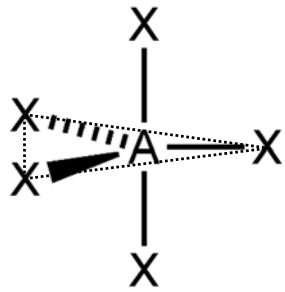
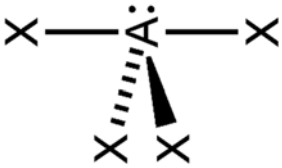
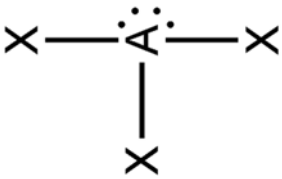
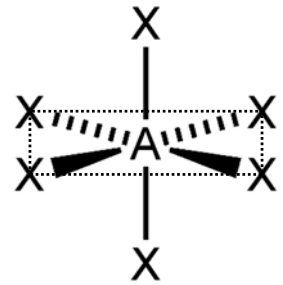
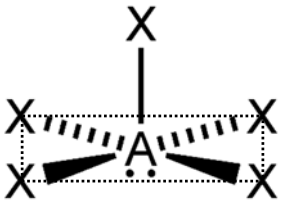
Annex: Shapes of Molecules

e.p.	Basic shape	l.p.	Shape	∠	P	E.g.
2	linear	0	(same)	180°	N	CO_2
3	 trigonal planar	0	(same)	120°	N	BF_3
		1	 bent	119°	Y	$SnCl_2$
4	 tetrahedral	0	(same)	109.5°	N	CH_4
		1	 trigonal pyramidal	107°	Y	NH_3
		2	 bent	104.5°	Y	H_2O
5	 trigonal bipyramidal	0	(same)	120° on plane; 90° on perpendicular axis	N	PCl_5
		1	 distorted tetrahedral	119° on plane; <90° on perpendicular axis	Y	SF_4
		2	 T-shaped	<90° on perpendicular axis	Y	ClF_3
		3	linear	180°	N	XeF_2
6	 octahedral	0	(same)	90°	N	SF_6
		1	 square pyramidal	<90°	Y	IF_5
		2	square planar	90°	N	XeF_4