VSEPR-Predicted Shapes for MX_n Molecules (n = 2, 3, 4, 5, 6)

Formula	Case	Shape	Example
MX_2	2 bonds + 0 lone pairs	linear	BeF_2
	2 bonds + 1 lone pair	bent (<120°)	$SnCl_2$
	2 bonds + 2 lone pairs	bent (<109.5°)	H_2O
	2 bonds + 3 lone pairs	linear	XeF_2
MX_3	3 bonds + 0 lone pairs	trigonal planar	BF_3
	3 bonds + 1 lone pair	trigonal pyramidal	NH_3
	3 bonds + 2 lone pairs	T-shape	ClF_3
MX_4	4 bonds + 0 lone pairs	tetrahedral	CH_4
	4 bonds + 1 lone pair	irregular tetrahedron	SF_4
	4 bonds + 2 lone pairs	square planar	XeF_4
MX_5	5 bonds + 0 lone pairs	trigonal bipyramid (*tbp*)	PF_5
	5 bonds + 1 lone pair	square pyramid	IF_5
MX_6	6 bonds + 0 lone pairs	octahedral	SF_6

Note: In this table, "bond" means a linkage between two atoms in a molecule. Thus a single-, double-, or triple-bond constitutes only one bond.