

Deluxe Kit vs. Student Kit: A Comparison

Solid-State Model Kits: Two Kits, One Instruction Manual

How Do the Kits Differ?

This Instruction Manual is designed for use with both ICE Solid State Model Kits—Deluxe and Student. How do these kits differ? *The primary difference is the number of spheres and rods included*, which influences the number and size of the structures you can build.

Deluxe Kit: build more than 80 different solid state structures—every structure shown in this manual. In a very few cases, only a unit cell can be built with one kit

One Student Kit: build more than 60 different structures

Two Student Kits: build more structures simultaneously than with one Deluxe Kit

There are two ways to build all the structures in this manual:

1. combine the contents of two Student Kits
2. use one Deluxe Kit

Note that you can divide one Deluxe Kit between two groups of students.

Comparison, Kit Contents

Kit Version	Base Plates	Metal Rods	Templates	Colorless Spheres	Green Spheres	Blue Spheres	Pink Spheres	Yellow Spheres	Spacer Tubing, package	Instruction Manual
Deluxe	2	39	15	56	39	44	39	17	1	1
Student	2	27	15	27	19	22	32	–	1	1

Replacement parts are available: <http://ice.chem.wisc.edu/Forms/OtherMaterialsList.pdf>

Which Structures Require a Deluxe Kit or Two Student Kits?

The symbol ② occasionally appears in the directions for a structure (as well as in the Table of Contents and Index). The ② indicates that the structure requires more spheres and/or rods than are contained in one Student Kit. These structures are listed below; the directions for building each are on the page listed.

Fluorite (alternate)	page 16
BiF ₃	page 19
Cu ₂ AlMn	page 20
Cubic Close Packing (with body diagonal cube)	page 26
Cadmium Chloride	page 34
Corundum (α -Alumina)	page 37
Tl ₂ Ba ₂ Ca ₂ Cu ₃ O ₁₀	page 47
Spinel, MgAl ₂ O ₄	page 48
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- ② This symbol indicates that more spheres are required to build this structure than are contained in one Student Kit. To build it, either use one Deluxe Kit or combine the contents of two Student Kits.