Step 1: Layout
This project demonstrates how to build on a new hard, level surface. If building on an existing hard surface, skip ahead to Step 3. First, mark out the location of the fireplace by drawing a guideline of 10’6” wide by 66” deep and where the fireplace will be constructed.

Step 2: Build Foundation & Fill
Begin digging a hole that is 10’6” wide by 66” and 10” deep. Compact your soil sub base and place 3” of crushed rock into your 10” deep hole and compact. Add an additional 3” of crushed rock and compact again. It is recommended that your base have 6” of compacted crushed rock. Form up a 10’ x 60” rectangle in the center of the crushed rock and pour 4” of 4000 p.s.i. A/E concrete mix. Make sure concrete footing is level. Use the heat resistant cement to adhere 2 Bedford cuts (F) to the 4” facing of a full lintel. Work on a level surface to ensure that the bottom of the Bedford are flush with the bottom of the lintel (see course 11). Wait a minimum of 24 hours (depending on weather conditions) for concrete and lintel to cure before moving to Step 3.

Step 3: Build
Install your base course of 8” x 8” x 16” hollow concrete masonry units, Bedford Standard units and 4” solid concrete block. Use a square tool to line up the units to ensure your project is ‘square.’ Building a full course at a time will ensure that the blocks line up properly. Due to the placement of the block, actual measurements may vary. Install product by course according to the course diagrams provided. Make sure to level the vertical Bedford Standard walls as you build. Reading Rock, Inc. recommends using masonry adhesive on every course of Bedford Standard units to add stability to your project.

Step 4: Continue Building
Use the heat resistant cement when installing the base and wall firebrick. Coat the lintel surfaces that are exposed to the fire box with the same cement. As you build courses 14-20, it may be helpful to allow your adhesive to dry before building the next course. Note: On course 11 use firebrick shims to keep Bedford Units level. Please be aware that the kit is available with Slate Paving Stones in Appalachian Gray only.
Materials Included in Bedford Fireplace Sr. Kit

A  (4) Bedford Cut - 3" x 7 7/8"
B  (48) Bedford Cut - 4" x 7 7/8"
C  (2) Bedford Cut - 5" x 7 7/8"
D  (8) Bedford Cut - 6" x 7 7/8"
E  (28) Bedford Cut - 7 7/8" x 7 7/8"
F  (10) Bedford Cut - 4" x 11" 13/16"
G  (2) Bedford Cut - 4" x 6"
H  (4) Bedford Cut - 6" x 11" 13/16"
I  (20) Firebrick Half Pieces - 4 1/2" x 4 1/2"
J  (2) Lintel Cut - 4" x 8" x 20"
K  (250) Full Bedford Standards - 3 15/16" x 7 7/8" x 11 13/16"
L  (75) Full Firebrick - 4 1/2" x 9"
M  (3) Full Lintels - 4" x 8" x 40"
N  (14) Hollow Core Block - 8"W x 8"D x 16"L
O  (10) Solid Block - 4"W x 8"D x 16"L
P  (5) Shims (supplied and cut by customer)
Q  (6) Slate Paving Stone - 12" x 24" (Appalachian Gray Only)
R  (2) Slate Paving Stone - 6" x 12" (Appalachian Gray Only)
S  (4) Slate Paving Stone - 15" x 12" (Appalachian Gray Only)
T  (2) Slate Paving Stone - 24" x 36" (Appalachian Gray Only)
U  (1) Clay Flu (full size)
V  (1) Clay Flu (4" cut off height)
W  (10) Paverbond Adhesive
X  (1) 128oz. Heat Resistant Cement
Y  (1) Chimney Cap
Z  (1) Clay Flu (4" cut off height)

Tools needed:
- Square
- Measuring Tape
- String Line
- Level
- Hammer and Chisel
- Safety Glasses
- Work Gloves
- Hand Tamper
- Dead Blow Hammer
- Cement Trowel
- Caulk Gun

Additional Materials needed:
- 1.5 Tons of Crushed Limestone
- Lumber to form concrete pad
- 4" of 4000 p.s.i. A/E Mix (1.5 cubic yards)