

# Rock Tumbling

Rock tumbling is an inexpensive way to get polished rocks. However, it is time consuming and can be frustrating when the rocks do not polish correctly – or worse yet ‘disappear’ in the tumbler when they are too soft. That being said, tumbling can be a rewarding introduction to lapidary, especially for youth that are guided by an adult.

# Rock Tumbling Equipment

- Rock Tumblers come in many sizes, from quart up to 10s of gallons.
- The most common type of tumbler is a rotary tumbler. Vibratory tumblers are also available.
- Grit or polish is added to the rocks that are to be tumbled.
- More information on tumbling technique and equipment can be found on the Internet, eg:
  - [www.kingsleynorth.com](http://www.kingsleynorth.com)
  - [www.littleredstore.com](http://www.littleredstore.com)
  - [www.therockshed.com](http://www.therockshed.com)

# Introductory Tumbler



Rocks, water, and polishing grit in the rubber barrel.

The small motor rotates a roller that the barrel sits upon, turning the barrel at about 1 revolution per second.



# Progression from the Field to a Polished Stone – On the Beach



# Comments on Tumbling Mixed-Stone-Type Batches, i.e. Beach and River Rocks

- A. When starting with well-rounded rocks such as beach stones or river rocks, the initial grinding with 80 and 220 grit may often be omitted.
- B. Since beach rocks are of mixed types (i.e. different minerals and therefore different hardness), getting all to polish equally well is difficult. There are two solutions to this problem:
  - 1) Accept that all of the stones will not have a good polish. Possibly, the stones from a batch that are polished less-well could be saved for combining into a later batch (see no. 2 below).
  - 2) Sort the beach stones by hardness and only tumble stones of similar hardness in a batch. Even with this, multi-mineral stones like granite are hard to polish.



# Progression from the Field to a Polished Stone

After First Pre-polish for 7 days with 600 grit



Rocks well-rounded and look good while wet (pictured), but are dull when dry. (Note that these stones were already well-rounded when this batch was started.)

# Progression from the Field to a Polished Stone

After Second Pre-polish for 7 days with 1200 grit



Rocks are still dull in spots when dry.  
(Picture is with rocks wet.)



# Progression from the Field to a Polished Stone

After 7 days with final polish with cerium oxide ( $\text{CeO}_2$ ) and 4 days burnishing

Rocks are shiny when wet (at left) or dry (at right)!

