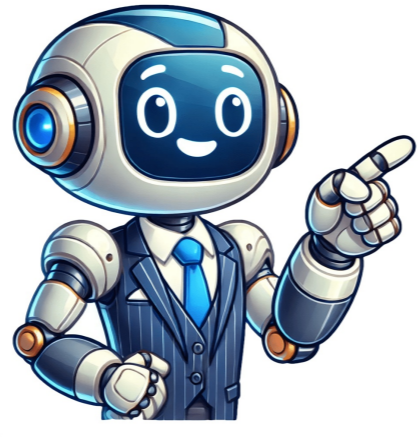


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National geographic rock tumbler instructions

We're going to demonstrate how to do the burnishing step for tumbled rocks or glass. Burnishing involves running the rocks in a heavy soap bath for about 30 minutes to an hour. This can significantly improve their luster and make them shine. To determine if burnishing will work, perform the "buffing test" by rubbing one of the stones rapidly on a soft cloth. If the luster improves, then burnishing should also improve it. Burnishing in a Thumler's U-V10 vibratory rock tumbler is quick and easy. Fill the barrel with your stones, add polished media if needed, and mix with water and finely grated Original Ivory bar soap. Let the rocks tumble for 30-60 minutes, then cover to prevent evaporation. Rocks tumbled in "hard water" can often benefit from burnishing. If you're not satisfied with the results, try the burnishing step to see what happens. You might be surprised! To cushion large rocks, add small particles to prevent scratching. For burnishing, use gentle tumbling with pre-tumbled ceramic media. You can also add plastic pellets for extra protection. Grate or thinly slice Ivory Soap and use about 1/2 tablespoon per pound of material in the tumbler. Some people prefer powdered detergents like Tide, Borax, or Dreft - about 1/2 tablespoon per pound of rock. Add just enough water to almost cover the rocks for rotary tumblers, and a little extra (20% for vibratory tumblers. Use warm water to help the soap dissolve faster. For best results, use only Ivory Soap, as other soaps may contain added oils or abrasive particles that can harm your rocks or tumbler. Burnishing time varies - one hour in a rotary tumbler and 30 minutes to one hour in a vibratory tumbler should be sufficient. Don't overdo it, as this can remove some of the polish. After finishing, clean up your rocks and admire their new shine. For more information on rock tumbling, visit our detailed instructions or resource page, or check out Steve Hart's book "Modern Rock Tumbling". To achieve optimal results in rock tumbling, it's essential to select materials with specific properties, including adequate quality to accept a polish, a Mohs hardness between 6 and 7, and a size range of 3/8" to 1 1/2". Suitable materials for tumbling include agate, bloodstone, carnelian, jasper, and various types of quartz, as well as rocks like andesite, basalt, and granite. When tumbling, we adhere to three fundamental principles: "Garbage in means garbage out," which emphasizes the importance of using high-quality rough materials; "Avoid contamination," which involves preventing the introduction of foreign particles or low-quality materials that can compromise the tumbling process; and "Great results take time," which encourages patience and attention to detail throughout the process. By following these guidelines and taking the time to carefully select and prepare materials, you can transform rough rocks into stunning tumbled stones. It's crucial to discard any rocks that are porous, fractured, or misshapen, as they will not produce desirable results. Additionally, using quality rough saves time, reduces waste, and yields higher-quality tumbled stones. When purchasing tumbling rough, look for vendors who provide clear descriptions, photos, and testimonials from previous customers. To avoid contamination, thoroughly clean your equipment and materials between each step, and test rocks for grain shedding by rubbing them together under pressure. If a rock shows signs of shedding grains, it's best to tumble it separately to prevent damage to other stones. By being patient, meticulous, and committed to quality, you can achieve exceptional results in rock tumbling and create beautiful, polished stones that showcase your skill and dedication. To achieve high-quality tumbled stones, it is essential to follow the rule "garbage in means garbage out." This means selecting only rough rocks with minimal voids and no protrusions that can trap grit. Remove any fractured rocks, as they will break during tumbling and scratch other rocks. Before loading the barrel, inspect each rock for porosity or fractures. Discard porous pieces to prevent contamination and fractured rocks to avoid breakage and scratches. A well-balanced mix of rock sizes is crucial, with a range of particle sizes from 1/4 inch to 1 1/2 inches in diameter. To optimize tumbling results, ensure all rocks are of the same type and hardness. Mixing different types can lead to problems and make diagnosis difficult. Load the barrel with a variety of rough pieces, including small ceramic media as filler if needed. This will provide points of contact between rocks for effective grinding. To tumble rocks, start by cleaning the barrel and adding rock particles until it's about half to two-thirds full. Use a variety of rock sizes to ensure good contact between them. For small tumblers, work with rocks around 1/4 inch to 1 1/2 inches in size. Add enough grit to cover the rocks by about one-sixth to one-quarter inch deep. Then, add water almost to the top of the rocks and seal the barrel. Run the tumbler for seven days. After seven days, open the barrel and find that the rocks are covered in mud and grit. Rinse off every speck of debris using a screen or colander over a plastic bucket. Be careful not to let the used grit and mud go down the drain, as it can clog pipes. Instead, wash the rocks in a colander over a plastic bucket. Next, inspect your rocks to determine if they're ready for the next step or need another week of tumbling. You may want to repeat STEP 1 until you have enough nicely shaped rocks that are ready for STEP 2. Some people sort their rocks into three categories: those that are ready, those that could be improved with more time, and those that should be discarded. When restarting STEP 1, add a few new rocks to keep the barrel at the proper level. Here's an example of rocks right out of STEP 1, covered in gray mud. This rock mud is spent grit and tiny rock particles that were worn off during tumbling. To avoid contaminating STEP 2, wash the rocks thoroughly in a colander over a plastic bucket so none of the mud goes down the drain. IT IS VERY IMPORTANT TO WASH THE MUD IMMEDIATELY, as drying it on the rocks makes it difficult to remove. The second step of the process involves running the rocks with medium grit, but it's crucial to clean all coarse grit and rock mud from the rocks, tumbler barrel, and lid beforehand. To avoid damaging fragile materials like quartz, fill the barrel to 1/2 to 2/3 full level during STEP 2. For more delicate rocks, add ceramic media to achieve this level. After adding two tablespoons of medium grit per pound of rock (and ceramic media), water until just below the top of the rocks. Tumble for seven days, then clean and inspect for any cracked or broken rocks. Discard these and remove used grit from the drain to prevent clogging. The third step involves a week in fine grit such as 600 grit silicon carbide. Begin with a clean barrel, adding two tablespoons of fine grit per pound of material, and water until it fills the barrel below the top of the rocks. Run for seven days, then thoroughly clean the rocks, barrel, and lid. Remove any damaged or fractured rocks, and ensure both the lid and rim are perfectly clean before replacing the lid to prevent leaks. Given article text here 1. Perfectly clean rocks require the right amount of grit to avoid ruining the polish. 2. A few specks of grit can ruin a great polish; therefore, adding two level tablespoons of rock polish per pound of material in the barrel is crucial. 3. After running the barrel for about seven days, check if the stones are bright and shiny; if not, cleaning up using the burnishing step may be necessary. 4. If the stones have scratches, repeat the medium grind, fine grind, and polishing steps to fix them. 5. Burnishing can be done by grating a bar of Ivory Soap with a vegetable grater and adding 1/2 tablespoon of grated soap for each pound of rock plus enough warm water to almost cover the rocks. 6. Sometimes stones may appear hazy or have small particles of polish in micro-size crevices; therefore, tumbling for an hour or so in soapy water can help clean them up. 7. Keeping records is essential to track progress and provide a history of the tumbled stones; we recommend using our free printable tumbling log. 8. With decades of rock tumbling experience, Hobart M. King provides a complete walkthrough of using the National Geographic Rock Tumbler kit, including step-by-step process, safety precautions, and troubleshooting tips. 9. Upon opening the kit, you'll find a variety of materials, including rocks, grits, polish, and instructions to get started with creating beautiful jewelry. The National Geographic Rock Tumbler kit is an essential tool for transforming rough rocks into sparkling gems. At its core lies a durable tumbling barrel where the magic happens, with various grades of grit - coarse, medium, fine, and polish - each step crucial in achieving a smooth finish. The kit comes with a generous supply of diverse-colored and textured rocks, as well as an instruction manual to guide you through the process. You'll also find jewelry settings to showcase your polished creations. Before starting, it's vital to prepare your rocks properly. Inspect them carefully, removing any debris or dirt, and clean them gently with water and a soft brush. For tougher dirt, use mild detergent followed by a thorough rinse. Next, examine each rock for sharp edges or flaws, breaking down larger rocks into smaller pieces using a rock hammer or pliers. To ensure optimal results, take your time to meticulously prepare each rock, making sure they're clean, evenly sized, and free from potential issues. This attention to detail will significantly improve the final outcome of your polished gems. The tumbling process is divided into several steps. Begin by adding coarse grit (usually silicon carbide) to the barrel according to the instructions, then carefully place your prepared rocks inside, ensuring even distribution. Add water until the rocks are submerged but avoid overfilling. Secure the lid tightly and plug in the unit, selecting the lowest speed setting for coarse grit and setting the timer for 7-10 days. During this initial stage, the coarse grit will work to remove sharp edges and smooth out surfaces. This is just the first step in your rock-tumbling adventure, but with patience and attention to detail, you'll be able to transform rough rocks into beautiful, polished gems. Preparing for finer grits is crucial. Periodically check noise levels; excessive noise may indicate issues with fullness or water. Adjust as needed. Always follow manufacturer's instructions for best results. Next step: Medium Grit Remove rocks from the barrel and rinse thoroughly to eliminate coarse grit particles. Cleanliness ensures a smooth transition. Add medium grit, referring to instructions for quantity. Place cleaned rocks back in the barrel, distributing evenly, and add water. Secure lid tightly. Mount barrel on tumbler base and connect power cord. Select speed and timer settings as specified. Medium grit refines rock surfaces, removing imperfections. Monitor operation; listen for unusual noises or imbalance. Avoid overfilling. Prioritize safety; handle rocks carefully to avoid injury. The medium grit stage prepares rocks for final polishing stages. Final polishing stage: be cautious with rocks and equipment to avoid accidents. Follow these steps for a flawless polish: 1. Clean the tumbler barrel and rocks thoroughly after fine grit stage. 2. Add specified amount of polishing compound; using too much or little can ruin results. 3. Gently add rocks, ensuring even distribution to prevent uneven polishing. 4. Add recommended water, making sure all rocks are submerged for superior shine. 5. Secure lid firmly, check water level regularly, and inspect tumbler for any issues. Final step usually takes a few days; be patient and attentive to results. Make shure the barrel is tightley attached to the base and ther arnt any rocks gettin in the way of the mechsanism. If the tumbler isnt turnin, check the power cord connection and make shure its plugged into a good power outlet. Also, check that the power swich is on. If the rocks arnt polishin properly, it might be becuz not enuf grit or a too short tumbling cycle. Look at your instruction manual for recomendted tumbling times and make shure you are using the rite grit for each stage. If the polishin isnt even, it could be becuz an unbalanced load in the barrel or not enuf water. Make shure the rocks ar all evenly distributd and ther is enuf water to cover them properly. If you see any leaks, check the rubber gasket on the lid for any damage or wear and replace if necessary. If the problem persists, look at your manufactorrs warranty info or contact custmer support for help. And always make shure to unplug the power cord before doing any interanal inspections or maintenance. Choose a stone that fits perfectly into its designated setting. Make sure it's securely fastened so it won't fall out. If needed, use specialized adhesives for jewelry-making, following the instructions carefully. Once the stone is set, inspect your piece for any flaws and make adjustments if necessary. Once you're satisfied with your creation, showcase your unique jewelry. The polished stones will add a touch of natural sophistication to your design. Consider adding beads or chains to enhance its visual appeal. Keep your finished jewelry safe from harsh chemicals and rough handling to preserve its condition. Your imagination is the only limit; let it guide you in crafting beautiful and one-of-a-kind jewelry.