

Rock into Paint

KIDS HANDS-ON • ADULT AT THE MORTAR

RUN AT 10:45

30 MIN

The point

Even the **hardest** thing in the room is a crowd of particles — and once the crowd is crushed apart, it can be built into something brand new. Paint **IS** crushed rock.

Materials

- Soft rocks (sandstone or chalk), 6+ pieces, tested
- Iron mortar and pestle (in a tray)
- Kid-size safety goggles
- White paper (powder smear) + heavy paper (painting)
- Matte medium (or white glue thinned 1:1 with water) + spoon
- Paintbrushes
- Jumbo hand lenses

Steps

- 1 Goggles on. Each child takes a turn **crushing rock in the mortar** — adult hand over small hands for the first grinds.
- 2 Tip some powder onto white paper; **smear a pinch with a fingertip** — see the fine specks.
- 3 **Lens check:** are the specks particles? Still too big — the real ones hide below even the lens.
- 4 **Stir powder into a spoonful of matte medium** — rock has become paint.
- 5 **Paint with it.** The painting is crushed rock, glued back together in a new shape.

Say: “Even a ROCK is a crowd of particles. Crush the crowd apart, add glue, and you can build the crowd into something brand new — that’s all paint is.”



Fig. 4 — rock → powder → paint: the same particles, rearranged

TEACHER PREP — DAYS BEFORE

Collect 6+ soft rocks (sandstone/chalk) and **test-crush one** — hard river rocks will not give. Stage one rock in the mortar for the oration, plus a spare.

SAFETY

Goggles stay on at the mortar — grit flicks up. Mortar stays low in its tray. Adult hands over small hands for the first grinds.

What to watch for

- The grinding sound turning gravel into flour
- Paint color = rock color (nobody added color!)

EXPECTED RESULT

Real paint from rock powder + binder; a painting whose color came entirely from the crushed rock. The particles **never stopped being rock particles**.