STEAM
Classroom Supply List & Integrated Applications

SMARTIES ART & SCIENCE EDUCATION

Basic Consumables

- Construction paper, watercolor paper, tissue/colored/origami paper
  - Application: Model plant cells (science), create geometric shapes (math), and collage landscapes for earth science.
- Markers, crayons, colored pencils, oil pastels
  - Application: Draw physics diagrams, illustrate story problems in math, sketch prototypes before building.
- Scissors, rulers, glue, tape (regular, masking, painter's)
  - Application: Measure and construct bridges (engineering), assemble pop-up books (language arts + engineering).
- Paints (watercolor, tempera, acrylic), paintbrushes
  - Application: Texture experiments (science), color mixing and patterning (math), painting historical events (social studies + art).
- Clay, modeling dough, air-dry clay
  - Application: Sculpt fossils/anatomical models (biology), explore geometric solids (math), build prototypes of invention ideas.

Tactile, Sensory, and Nature Materials

- Sand, pebbles, gravel, soil, beans, rice, dried leaves/flowers, pine cones, bark
  - Application: Sort and classify for botany/ecology, create patterns (math), sensory exploration in story immersion (ELA/Art).
- Wood shapes, rocks, shells, sponges, cotton balls, foam shapes
  - Application: Build landforms (geography), test physical properties (physics), model sea life ecosystems (marine biology/art).

Building and Engineering Supplies

- LEGO bricks, magnetic tiles, pattern blocks, connecting cubes, KEVA planks, K'NEX, dominos
  - Application: Engineer towers/bridges, design math symmetry, build scale models of habitats (science/art).
- Magnetic tape, sticky tack
  - Application: Attach classroom displays, make interactive science boards or kinetic art installations.
- Cardboard boxes/tubes, egg cartons, foam board
  - Application: Prototype vehicles/robots (engineering), create model planets (astronomy).
- Recycled plastics, bottles, caps, tubs
  - Application: Design eco-art projects, construct water-filtration systems (science/engineering).
- Craft sticks, straws, toothpicks
  - Application: Build bridges, create 3D geometric art, design model skeletons (biology/art).

Tools and Measurement

- Magnifying glasses, hand lenses, mirrors
  - Application: Observe insect structures, study reflection/refraction, create optical illusion art.
- Plastic tweezers, droppers
  - Application: Conduct science experiments, practice fine-motor skills in sculpture/file:2].
- Measuring cups, spoons, small scales, timers, thermometers
  - Application: Measure chemical reactions (science), bake edible art (food science + math).

Technology and Multimedia Tools

- Tablets, laptops, desktop computers
- Application: Digital animation, design engineering blueprints, program robots or code art projects.
- Small cameras, microphones, digital imaging
- Application: Document fieldwork, create video presentations, record musical compositions (music/art).
- Robotics kits (Bee-Bot, Dash, Ozobot)
- Application: Program pathways with colored markers, design robotic art displays, explore coding concepts.
- Circuit kits (Snap Circuits, squishy circuits, LED lights, batteries, wires)
- Application: Build illuminated art, investigate conductivity, create interactive science fair boards.
- Apps (Canva, Google Classroom, CapCut, Code.org, Tinkercad, Kahoot, Seesaw)
  - Application: Graphic design for posters, digital student portfolios, coding math games and animations.

Building and Engineering Supplies

- Bristlebot robotics kits, Mango Math kits, marble runs
- Application: Build simple robots (engineering/art), make marble runs to model physics laws.
- Science experiment kits (volcanoes, weather stations)
- Application: Simulate eruptions (earth science/visual modeling), cast weather patterns in multimedia art.
- Magnet sets, kinetic sand
- Application: Explore magnetism, sculpt landscapes, combine with coding to animate motion stories.
- Laser cutter, 3D printer, cardboard scissors, hand saws, cordless glue guns
  - Application: Create precise architectural models, fabricate prototypes, produce layered mixed-media art pieces.