

K-4 Science Academies, Part 2
Supply list

Earth and Space

Kindergarten: Earth and Space

K-Earth and Space **Engage Lesson**: p. 96-

- For teacher:
 - Chart paper
 - Marker
 - Masking tape (optional)
 - Resealable sandwich size bags
 - Resealable jewelry size bags (2X2)
 - Packing tape
- For groups:
 - Hand lenses
 - 8-10 rocks of different size, shape, color, texture
 - Small bag of sand
 - Objects that are not rocks
 - Apple
 - Bb, in plastic
 - Bean in plastic bag
 - Brick
 - Coins
 - Cotton ball
 - Cup
 - Glass marble
 - Magnet
 - Plastic ball
 - Shells of various sizes and shapes
 - 2 note cards, 3x5
 - Pencil
 - RM1, cut and bagged – p. 107
 - Tablet (optional)
 - Tray or bags for materials

K-Earth and Space **Explore Lesson**: p. 99-

- For teacher
 - Chart paper or notebook
 - Digital camera (optional)
 - File folders
 - Glue stick
 - Marker
 - RM2 – p. 109, 111, 113, 115, 117, 119, 121, 123, 125,
 - Timer
- For groups:
 - Folders prepared using RM2
 - Hand lenses
 - Rocks from engage
 - 10-12 additional rocks

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K-Earth and Space **Explain** Lesson: p. 102

- For teacher
 - ***My Rocks: Snapshots of My Rock Collection***, book
 - Poster/class science notebook entry from Explore
 - Marker

K-Earth and Space **Elaborate** Lesson: p. 104

- For teacher
 - Poster/science notebook entry from explore and explain
- For each student
 - Art supplies: crayons, construction paper, scissors
- 1 rock
- RM3 – p. 127

K-Earth and Space **Evaluate** Lesson: p. 105

- Rocks from the lesson
- Digital camera or tablet (optional)

Grade 1: Earth and Space

G1-Earth and Space **Engage** Lesson: p. 135

- For teacher:
 - Computer
 - Marker
 - Projector
 - Resealable plastic bag for soil sample
 - RM1 – p. 145
 - Hand shovel
- For each student:
 - Chocolate chip cookie
 - Napkin

G1-Earth and Space **Explore** Lesson: p. 137

- For teacher:
 - Computer
 - Projector
 - RM 2 – p. 147, 149, 151
 - Wet wipes
- For student groups:
 - Soap and water
 - Marker
 - Craft sticks (optional)
 - Paper towels
 - Plastic spoons
 - RM2-p1 (p. 147)
 - Resealable quart-size plastic bag or container for soil
 - Hand shovel
 - Small spray bottle of water

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- Strainer/sieve
- Tablecloth or newspaper
- Tray for materials
- Gloves (optional)
- Hand lens
- RM3 – p. 153, or science notebook
- Small paper plate
- Safety goggles

G1-Earth and Space Explain Lesson: p. 140

- For teacher:
 - **Soil! Let's Dig In** book
 - Science notebook or chart paper
 - Marker

G1-Earth and Space Elaborate Lesson: p. 141

- For student groups:
 - Digital camera (optional)
 - Empty 16.9 oz plastic water bottle
 - Funnel
 - Hand shovel
 - Gloves (optional)
 - Liquid dish soap
 - Paper towels
 - Soil samples from Explore
 - Timing device
 - Tray for materials
 - Water/sink access
 - Wet wipes
- For each student:
 - Hand lens
 - Science notebook or RM4 – p. 155
 - Safety goggles

G1-Earth and Space Evaluate Lesson: p. 143

- For teacher:
 - RM1- p. 145
 - Computer
 - Projector
 - Video camera or tablet
- For each student:
 - Science notebook

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Grade 2: Earth and Space

G2-Earth and Space **Engage** Lesson: p. 162

- For teacher:
 - Chart paper or white board
 - Marker
 - Rock that will fit in a shoebox
 - Cardboard shoebox with lid
- For each student:
 - Science notebook (optional)

G2-Earth and Space **Explore** Lesson: p. 164

- For teacher:
 - Chart paper or class science notebook
 - Permanent markers, fine tip
 - Correction fluid
 - Marker
 - Poster from engage
- For student PAIRS:
 - Crayons or colored pencils
 - Hand lens
 - 1 piece of white paper or RM1 – p. 177
 - Rock

G2-Earth and Space **Explain** Lesson: p. 169

- For teacher:
 - Rock Notes book
 - Chart paper
 - Poster from explore
- For student pairs:
 - Rocks and descriptions from Explore
 - Scissors (optional)
 - RM2 (optional) – p. 179

G2-Earth and Space **Elaborate** Lesson: p. 173

- For teacher:
 - Tape or staples
 - Posters from Explore and Explain
- For each student:
 - Crayons or color pencils
 - Hand lens
 - 1 piece of white paper
 - 1 rock from Explore set
 - RM 3 (optional) – p. 181

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G2-Earth and Space **Evaluate** Lesson: p. 175

- For each student:
 - Rock
 - Craft materials: paper, crayons, shoe boxes, construction paper
 - RM3 (optional) – p. 181
 - RM4 – p. 183
 - Tablet (optional)

Grade 3: Earth and Space

G3-Earth and Space **Engage** Lesson: p. 191

- For teacher:
 - 2 cups of soil
 - Paper plate
 - 3-4 rocks of various sizes
 - 1 banana
 - Handful of dead or decaying leaves
 - Several earthworms in a container
 - 2 sentence strips
 - Tape
 - Marker
 - 2 pieces of 8 ½ x 11" cardstock
 - Chart paper (optional)
 - Long rectangular table

G3-Earth and Space **Explore** Lesson: p. 193

- Station 1:
 - For each student:
 - Safety goggles
 - Science notebook
 - For student groups:
 - RM1 – p. 201
 - Sugar cubes
 - 3 pieces of sandpaper, 2" x 2"
 - 3 sheets of black construction paper, laminated
 - 3 hand lenses
- Station 2:
 - For each student:
 - Science notebook
 - For student groups:
 - RM 2 – p. 203, 205, 207, 209, 211
 - 2 envelopes, size DL

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G3-Earth and Space Explain Lesson: p. 196

- For teacher:
 - *Curious Miguel Asks About Soil* book
- For each student:
 - RM3 – p. 213, 215, 217
 - Pencil
- For student pairs:
- Print or digital copy of *Curious Miguel Asks About Soil*

G3-Earth and Space Elaborate Lesson: p. 198

- For teacher:
 - RM 5 – p. 233
- For each student:
 - 1 card from RM4 – p. 219, 221, 223, 225, 227, 229, 231

G3-Earth and Space Evaluate Lesson: p. 200

- For teacher:
 - Setup from Engage displayed for class
- For EACH student:
 - RM6 – p. 235
 - Paper plate
 - Hand lens
 - Safety goggles

Grade 4: Earth and Space

G4-Earth and Space Engage Lesson: p. 244

- For student groups:
 - 10 pieces of round toasted oats cereal
 - Wrapped straw
 - Wooden block (any size or shape)
 - Napkin
 - Metric ruler
 - Masking tape
 - Dark colored marker

G4-Earth and Space Explore Lesson: p. 246

- Part 1- Ice strikes again: For EACH student p. 246
 - RM1 – p. 259, 261
- Part 1- Ice strikes again: For student groups:
 - RM2 – p. 263
 - 1 PVC elbow pipe, ½ inch, threaded at both ends
 - 2 PVC plugs, ½ inch, threaded at one end
 - Small bowl of water
 - 1 sandwich resealable plastic bag
 - Dark-colored marker
- Part 2- weathering from water: For each student p. 247
 - Safety goggles

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- Part 2- weathering from water: for student groups:
 - RM 3 – p. 265
 - 3 small limestone samples, no more than 2 cm in diameter
 - 16.9 oz plastic bottle with cap
 - 250 mL of water in 250 mL beaker
 - Timing device
- Part 3- weathering from wind: for each student p. 248
 - Safety goggles
- Part 3- weathering from wind: for student groups
 - RM4 – p. 267
 - 1 gallon size resealable plastic bag
 - 1 cup moist sand
 - Individually wrapped straws
 - Balloon hand pump
 - 2 bamboo skewers, each 24.5 cm in length
 - Modeling clay
- Part 4- erosion and deposition from ice (glacier): for each student p. 249
 - Safety goggles
- Part 4- erosion and deposition from ice (glacier): for student groups
 - RM 5 – p. 269
 - Paper plate
 - 1 cup moist sand
 - Dark-colored marker
 - Water
 - Graduated cylinder
 - Tablespoon
 - Cornstarch
 - Small plastic cup
 - Wooden stirring stick
- Part 5- erosion and deposition from water: for each student: p. 250
 - Safety goggles
- Part 5- erosion and deposition from water: for student groups
 - RM6 – p. 271
 - One-half of a 16.9 oz plastic bottle cut lengthwise
 - 1/3 cup moist sand
 - 50 mL of water
- Part 6- erosion and deposition from wind: for each student p. 251
 - Safety goggles
- Part 6 – erosion and deposition from wind: for student groups
 - RM 7 –p. 273
 - Gallon size plastic bag
 - 2 bamboo skewers, each 24.5 cm in length
 - Modeling clay
 - 1 capful of moist sand
 - 1 capful of dry sand
 - Individually wrapped straws

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G4-Earth and Space **Explain** Lesson: p. 252

- For teacher
 - *The Adventures of Sandy, the Not-So-Sedimentary Sediment* book
- For students
 - RM8 – p. 275

G4-Earth and Space **Elaborate** Lesson: p. 255

- For each student
 - Access to internet
 - RM8 – p. 275
 - STAAR Expository Writing Rubric

G4-Earth and Space **Evaluate** Lesson: p. 257

- For each student:
 - RM 9 –p. 277, 279, 281

Organisms and Environments Lessons

Kindergarten: Organisms and Environment Lessons

K-Organisms and Environment **Engage** Lesson: p. 288

- For teacher:
 - RM1 – p. 297
 - Dry erase marker
 - Whiteboard
 - Tape or magnets
 - Resealable plastic bag

K-Organisms and Environment **Explore** Lesson: p. 289

- For teacher:
 - RM2 – p. 299, 301, 303, 305
 - 24 table tennis balls
 - Permanent marker
 - 3 buckets or baskets
 - Meter stick

K-Organisms and Environment **Explain** Lesson: p. 291

- For teacher:
 - Living things book

K-Organisms and Environment **Elaborate** Lesson: p. 293

- For teacher:
 - 2 clear plastic containers such as small animal terrariums
 - Canister of dry oats
 - Mealworms
 - Apple slices or moist paper towel
 - Potting soil
 - Water

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- For student groups:
 - Small plant
 - 2-3 mealworms in small plastic container
 - 8 ounce bottle of water
 - Resealable bag full of air
 - Small resealable bag of potting soil
 - Picture or model of sun
 - Metric ruler
 - 2 large stackable plastic plates or trays

K-Organisms and Environment Evaluate Lesson: p. 296

- For EACH student:
 - White paper
 - Crayons or colored pencils

Grade 1: Organisms and Environment Lessons Earth and Space

G1-Organisms and Environment Engage Lesson: p. 313

- For teacher
 - RM1 – p. 325, 327
 - Resealable plastic bag

G1-Organisms and Environment Explore Lesson: p. 315

- For student groups
 - RM2 – p. 329
 - RM3 – p. 331
 - Scissors
 - Glue
 - Map pencils or crayons (optional)

G1-Organisms and Environment Explain Lesson: p. 317

- For teacher
 - ***A Need to Survive*** book
 - Whiteboard and dry erase markers or projector
 - RM4 – p. 333

G1-Organisms and Environment Elaborate: p. 320

- For teacher
 - RM5 – p. 335
 - RM6 – p. 337, 339
- For EACH student
 - Science notebook
- For student groups
 - 2-3 earthworms
 - Dead leaves
 - Large, clear plastic container
 - Netting (optional)
 - Garden soil (enough to fill half the container)

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- Large rubber band (optional)
- Small plant with roots
- Water in a spray bottle

G1-Organisms and Environment Evaluate Lesson: p. 323

- For EACH student
 - RM7 – p. 341

Grade 2: Organisms and Environment Lessons

G2-Organisms and Environment Engage Lesson: p. 348

- For teacher
 - RM1 – p. 359
 - Whiteboard
 - Dry erase markers

G2-Organisms and Environment Explore Lesson: p. 350

- For teacher
 - RM2 – p. 361, 363
 - RM3 – p. 365, 367
 - RM4 – p. 369, 371
 - RM5 – p. 373, 375
 - 13 resealable plastic bags
- For student pairs
 - Set of factor cards from RM2
 - Organism card from RM3, 4, or 5
 - RM6 – p. 377, 379

G2-Organisms and Environment Explain Lesson: p. 352

- For teacher
 - ***What Would You Do?*** Book
- For EACH student
 - White copy paper
 - Pencil
 - Colored pencils or crayons
 - Clear adhesive tape or glue stick
 - Science notebook

G2-Organisms and Environment Elaborate Lesson: p. 355

- For teacher
 - Whiteboard
- For each student
 - Science notebook
- For student pairs
 - 1 organism card from RMs 3-5
 - RM7 – p.381
 - Access to library or internet

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G2-Organisms and Environment **Evaluate** Lesson: p. 358

- For each student
 - RM8 – p. 383

Grade 3: Organisms and Environment Lessons

G3-Organisms and Environment **Engage** Lesson: p. 391

- For teacher
 - RM1 – p. 407, 409
- For each student
 - Science notebook

G3-Organisms and Environment **Explore** Lesson: p. 394

- For student groups
 - RM2 – p. 411, 413, 415,417
 - RM3 – p. 419
 - RM4 – p. 421, 423
 - Paper clip
 - Pencil
 - Resealable plastic bag

G3-Organisms and Environment **Explain** Lesson:

- Part 1: for teacher – p. 397
 - **Home Sweet Home** book
- Part 2: for each student – p. 399
- Part 2: for student group
 - RM5 – p. 425
 - Resealable plastic bag

G3-Organisms and Environment **Elaborate** Lesson: p. 402

- For each student
 - RM6 – p. 427
 - RM7 – p. 429
 - Science notebook

G3-Organisms and Environment **Evaluate** Lesson: p. 404

- For teacher
 - RM6 – p. 427
 - RM7 – p. 429
- For EACH student
 - RM7 – p. 429
 - Science notebook

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Grade 4: Organisms and Environment Lessons

G4-Organisms and Environment **Engage** Lesson: p. 437

- For teacher
 - RM1 – p.451
- For each student
 - Science notebook

G4-Organisms and Environment **Explore** Lesson:

- Part 1: for the teacher p. 439
 - “Carbon Dioxide Investigation” video
 - 1 bedding plant
 - RM2 – p. 453
 - Bowl or resealable plastic bag
 - Chart paper
 - Markers
- Part 1: For student groups
 - 1 bedding plant
 - 1 lamp
 - Graduated cylinder
 - Water
 - Metric ruler
 - Hand lens (optional)
- Part 1: For each student
 - RM3 – p. 455
 - RM4 – p. 457
 - Science notebooks
- Part 2: for teacher
 - RM 5 – p. 459
 - Bowl or resealable plastic bag
- Part 2: for student groups
 - Computer lab or library
 - RM6 – p. 461
- Part 2: for EACH student
 - Science notebook

G4-Organisms and Environment **Explain** Lesson: p. 446

- For teacher
 - **Food News** book

G4-Organisms and Environment **Elaborate** Lesson: p. 448

- For EACH student
 - RM 7 – p. 463 or
 - RM8 – p. 465

G4-Organisms and Environment **Evaluate** Lesson: p. 449

- For the student

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- RM9 – p. 467