

ADE Presentation Concerning Curriculum Frameworks

SECTION 3: Equipment List for Elementary Science

ABSTRACT—The equipment list for elementary science includes a grade-level specific listing of equipment and materials necessary for implementation of the Arkansas Science Curriculum Framework.

Elementary Science Equipment List

This list was developed based upon the K-8 Science Curriculum Framework. The science framework states, “*a minimum of 20% of instructional time in science must be spent in inquiry and conducting hands-on investigations.*” Additionally, the first content standard in this framework reads, “*Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.*” The majority of the listed equipment is either safety equipment (e.g., safety goggles, fire extinguishers, first aid kits, fire blankets), measurement devices (e.g., graduated cylinders, balances, thermometers, barometers, spring scales), or devices to aid observation (e.g., hand lenses, magnifying glasses, compound light microscopes) needed to meet these requirements. Other items listed address specific student learning expectations. For example, listed for third grade is a rock and mineral test kit because *ESS.8.3.4* states, “*Identify the physical properties of minerals: hardness, color, luster, and streak.*”

This list does not include consumable items (e.g., household chemicals, paper products, seeds). Ideally, every teacher who teaches science should have access to an annual budget for the purchase of consumables and for maintaining science equipment. This list also does not address the incorporation of technology (e.g., computers, software, data collection devices, projection systems) into the science classroom.

Science - Kindergarten Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
1.	Balance , Ohaus or equivalent	plastic pans	5
2.	Balls	hard rubber, steel, tennis, golf, foam	1 set/2 students
3.	Beaker sets, plastic	1000mL, 500 mL, 250 ml, 100 mL, 50 mL	1 set/4 students
4.	Butterfly larvae kit	live	1
5.	Calculators	TI-10 or equivalent	12
6.	Charts, weather		1
7.	Fire extinguisher	ABC triclass	1
8.	First aid kit	Bandages, gauze, plastic box, OSHA compliant	1
9.	Googles, safety	elementary	1 per student
10.	Graduated cylinders set, plastic	100 mL, 50 mL, 25 mL, 10 mL	1 set/ 2 students
11.	Hand lens		1 per 2 students
12.	Hot plate	for teacher use	1
13.	Laboratory Cart		1
14.	Magnets	set-assorted sizes and shapes	1 set/4 students
15.	Magnifying glasses		1 per 2 students
16.	Mass sets	plastic	1 per 4 students
17.	Plant growth lab supplies	seeds, soil, pots, fertilizer, light source, etc.	1 set
18.	Rain gauge	plastic	1
19.	Rulers	standard and metric units	1 per student
20.	Scissors, safety	class set	1 per student
21.	Tape measures, set of 10	metric on one side, standard on the other	1 per 2 students
22.	Thermometer, Celsius, giant	one for classroom	
23.	Timer, digital		1
24.	Tooth model, giant	with giant toothbrush to demo proper oral hygiene	1
25.	Weather map, hanging		1

Science - Grade 1 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
1.	Balance , Ohaus or equivalent	plastic pans	5
2.	Balls	hard rubber, steel, tennis, golf, foam	1 set/2 students
3.	Barometer		1
4.	Beaker sets, plastic	1000mL, 500 mL, 250 ml, 100 mL, 50 mL	1 set/4 students
5.	Calculators	TI-10 or equivalent	12
6.	Fire extinguisher	ABC triclass	1
7.	First aid kit	Bandages, gauze, plastic box, OSHA compliant	1
8.	Flashlights and Batteries		1 per 2 students
9.	Googles, safety	elementary	1 per student
10.	Graduated cylinders set, plastic	100 mL, 50 mL, 25 mL, 10 mL	1 set/ 2 students
11.	Hand lens		1 per 2 students
12.	Hot plates	for teacher use	1
13.	Laboratory cart		1
14.	Magnifying glasses		1 per 2 students
15.	Magnets	set-assorted sizes	1 set/4 students
16.	Mass sets	plastic	1 per 4 students
17.	Meter sticks		1 per 2 students
18.	Plant growth lab supplies	seeds, soil, pots, fertilizer, light source, etc.	1 set/classroom
19.	Rain gauge		1
20.	Rulers	standard and metric units	1 per student
21.	Scissors, safety	class set	1 per student
22.	Tape measures, set of 10	metric on one side, standard on the other	1 per 2 students
23.	Thermometer, Celsius, giant	one for classroom	1
24.	Timer, digital	for teacher use	1
25.	Weather map, hanging		1 per classroom

Science - Grade 2 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
1	Balance , Ohaus or equivalent	plastic pans	5 per classroom
2	Balls	hard rubber, steel, tennis, golf, foam	1 set/2 students
3	Barometer		1
4	Beaker sets, plastic	1000mL, 500 mL, 250 ml, 100 mL, 50 mL	1 set/4 students
5	Calculators	TI-10 or equivalent	12
6	Fire extinguisher	ABC triclass	1
7	First aid kit	Bandages, gauze, plastic box, OSHA compliant	1
8	Flashlights and Batteries		1 per 2 students
9	Googles, safety	elementary	1 per student
10	Graduated cylinders set, plastic	100 mL, 50 mL, 25 mL, 10 mL	1 set/ 2 students
11	Laboratory cart	for teacher use	1
12	Hot plates		1
13	Magnets	set-assorted sizes	1 set/4 students
14	Magnifying glasses		1 per 2 students
15	Mass sets	plastic	1 per 4 students
16	Meter sticks		1 per student
17	Plant growth lab supplies	seeds, soil, pots, fertilizer, light source, etc.	1 set
18	Rulers	standard and metric units	1 per student
19	Scissors, safety	class set	1 per student
20	Stopwatches		1 per 2 students
21	Tape measures, set of 10	metric on one side, standard on the other	1 per 2 students
22	Thermometer, Celsius, giant	one for classroom	1
23	Thermometers	°C and °F dual	10
24	Timer, digital	for teacher use	1
25	Tuning Forks	set-assorted sizes	1 set

Science - Grade 3 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
1.	Anemometer		1
2.	Balance, Ohaus or equivalent	plastic pans	5 per classroom
3.	Balls	hard rubber, steel, tennis, golf, foam	1 set/2 students
4.	Barometer		1
5.	Beaker sets, plastic	1000mL, 500 mL, 250 ml, 100 mL, 50 mL	1 set/4 students
6.	Calculators	TI-15 or equivalent	24
7.	Chick-U-Bator	incubator	1
8.	Compasses, drawing		1 per 2 students
9.	Fire extinguisher	ABC triclass	1
10.	First aid kit	Bandages, gauze, plastic box, OSHA compliant	1
11.	Flashlights and Batteries		1 per 2 students
12.	Googles, safety	elementary	1
13.	Graduated cylinders set, plastic	100 mL, 50 mL, 25 mL, 10 mL	1 set/ 2 students
14.	Hot plates		1 for teacher
15.	Laboratory cart		1
16.	Magnets, classroom kit	various magnets, compass, iron filings, etc.	1
17.	Magnifying glasses		1 per 2 students
18.	Mass sets		1 per 4 students
19.	Meter sticks	brass	1 per student
20.	Microscope - elementary standard		4
21.	Microscope slides-plastic	box of 100 - disposable	2
22.	Mineral testing kit		1 per 2 students
23.	Model, lung		1
24.	Rain gauge		1
25.	Rock; Introductory collection		1
26.	Rock and mineral test kit		1 per 4 students
27.	Rulers	standard and metric units	1
28.	Scissors	class set	1 per student
29.	Solar system model	demo years, seasons, day and night	1
30.	Spring devices - Slinky or equivalent	investigate properties of waves	1 per 2 students

Science - Grade 3 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
31	Stopwatches		1 per 2 students
32	Surgical gloves/boxes of 100	latex, or vinyl	1
33	Tape measures, set of 10	metric on one side, standard on the other	1 per 2 students
34	Thermometer, Celsius, giant	one for classroom	1
35	Thermometers	°C and °F dual	10
36	Timer, digital	for teacher use	1

Science - Grade 4 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
1	AC/DC power supply		1
2	Anemometer		1 per classroom
3	Balance - Ohaus or equivalent		5 per classroom
4	Balls	hard rubber, steel, tennis, golf, foam	1 set/2 students
5	Barometer		1 per classroom
6	Beaker sets, plastic	1000mL, 500 mL, 250 ml, 100 mL, 50 mL	1 set/4 students
7	Bicycle pump		1 per 6 students
8	Calculators	TI-15 or equivalent	12
9	Compasses, drawing		1 per 2 students
10	Electricity Kit	construct simple circuits	1 per 4 students
11	Fire extinguisher	ABC triclass	1
12	First aid kit	Bandages, gauze, plastic box, OSHA compliant	1
13	Flashlights and Batteries		1 per 2 students
14	Gloves, polyethylene, disposable	package of 500 (use non-latex gloves for students who are sensitive)	1
15	Googles, safety	elementary	28
16	Graduated cylinders set, plastic	100 mL, 50 mL, 25 mL, 10 mL	1 set/ 2 students
17	Hot plates		1 for teacher
18	Laboratory cart		1
19	Magnets, classroom kit	various magnets, compass, iron filings, etc.	1
20	Magnifying glasses		1 per 2 students
21	Mass sets	brass	1 per 4 students
22	Meter sticks		1 per student
23	Microscope - elementary standard		4 per classroom
24	Multimeter - digital		2
25	Rocket launchers for plastic bottles		1 per 6 students
26	Rubber stoppers	assorted sizes	1 bag
27	Rubber tubing		50 ft
28	Rulers	standard and metric units	1 per student
29	Scissors	class set	1 per student
30	Tape measures, set of 10	metric on one side, standard on the other	1 per 2 students

Science - Grade 4 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
31	Terrarium and accessories	glass , hood, lights, gravel, soil, dishes	2
32	Terrarium, plants		1
33	Thermometers	°C and °F dual	10
34	Weather vane		1 per classroom
35	Wire	Copper insulated, 100 ft.	3 rolls

Science - Grade 5 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
1	Balances	Electronic, 0.1 g sensitivity	1
2	Balances, triple beam	student grade	7
3	Balls, set	set of 12, steel, wood, cork, brass, aluminum, lead	4
4	Beaker set	Plastic, 100 mL, 500mL, 250 mL, 100 mL, 50 mL	7
5	Binoculars	6 X 16 mag.	5
6	Brushes, test tube	set/12	1
7	Calculators	TI-15 or equivalent	12
8	Capillary tubes	box of 100	2
9	Cellophane, blue, red, green	25 ft. roll	1
10	Chromotography kit	basic/ 30 students	1
11	Clamps, test tube	set of 6	5
12	Compasses, drawing	attach to student pencil	30
13	Cork borer set	set of 6, used to take plant tissue samples	2
14	Corks	set of 100-assorted sizes	1
15	Crucible and cover	50 mL	10
16	Crystal growth kits	grow crystals using 4 different salts	1
17	Field guides/dichotomous keys	trees, birds, insects, etc.	30
18	Fire extinguisher	ABC triclass	1
19	First aid kit	Bandages, gauze, plastic box, OSHA compliant	1
20	Flashlights and Batteries	plastic	14
21	Fossils	assorted from different eras/set	1
22	Funnels	Polypropylene - 65 mm dia./set of 12	1
23	Gloves, latex /boxes of 100	latex, or vinyl	5
24	Googles, safety		28
25	Graduated cylinder set, plastic	100 mL, 50 mL, 25 mL, 10 mL	14
26	Gyroscopes		14
27	Hot plates		1 per 4 students
28	Laboratory cart		1
29	Lens- set	acrylic/set of 6	14
30	Magnets	set of assorted sizes	14

Science - Grade 5 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
31	Magnifying glasses		14
32	Mass sets	brass, set of 12, 1 g - 500 g	4
33	Meter sticks		15
34	Microscope maintenance kit		1
35	Microscope slides	plastic, disposable pkg. of 144	5
36	Microscope slides	shallow depression slides/set of 12	3
37	Microscopes, compound with light	4x, 10x, 40 x lenses	10
38	Microscopes, stereo dissecting		4
39	Mortar and pestle set		15
40	Multimeter - digital		2
41	Prisms - set	acrylic/set of 3	7
42	Protractors	plastic	30
43	Racks, test tube	polypropylene - all sizes	10
44	Rocks and minerals, intro set	set of 16	7
45	Rubber stoppers	set of assorted sizes/2 lbs.	1
46	Rulers	Metric	30
47	Simple machines kit	set of 5 discovery level kits	3
48	Stirring rods	glass, bundle of 50	1
49	Stopwatch		15
50	Tape measures, set of 10	metric on one side, standard on the other	1
51	Terrarium and accessories	glass, hood, lights, gravel, soil, dishes	2
52	Test tubes	20 x 150mm/ set of 72	1
53	Thermometers	°C and °F dual	15
54	Timer, digital		1

Science - Grade 6 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
1	Balances, triple beam	student grade	7
2	Balances, electronic	0.1 g sensitivity	1
3	Balls, set	set of 12, steel, wood, cork, brass, aluminum, lead	4
4	Beaker set, plastic	100 mL, 500mL, 250 mL, 100 mL, 50 mL	7
5	Blocks, friction	set of blocks with varying surfaces	7
6	Brushes, flask	set /12	1
7	Brushes, test tube	set/12	1
8	Brushes, beaker		5
9	Calculators	TI-73 or equivalent	28
10	Cellophane - red, blue, green	1 roll each	1
11	Cheesecloth	4 sq. meters	1
12	Clamps, test tube	set of 6	5
13	Corks	set of 100-assorted sizes	1
14	Cow, eye	pail of 50	1
15	Digital dissecting microscope	ex. Flexcam, Motic	1
16	Dissection kits	Ruler, scalpel, scissors, forceps, probes/needles	15
17	Dissection trays	Sturdy plastic pan with lid - reusable	10
18	Electrostatic cloths	silk, wool, fur - set	1
19	Fire extinguisher	ABC triclass	1
20	First aid kit	Bandages, gauze, plastic box, OSHA compliant	1
21	Flashlights and Batteries	plastic	14
22	Funnels	Polypropylene - 65 mm dia./set of 12	1
23	Gloves, latex /boxes of 100	latex, or vinyl	5
24	Googles, safety		28
25	Graduated cylinder set, plastic	100 mL, 50 mL, 25 mL, 10 mL	14
26	Heart, lungs, and trachea, sheep	"Sheep pluck" - attached organs	10
27	Hot plates		1 per 4 students
28	Indicator bottles	plastic -30 mL/ pkg. 12	2
29	Laboratory cart		1
30	Litmus paper	Hydrion AB ph Test Paper, 30'	2

Science - Grade 6 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
31	Magnifying glasses		14
32	Mass sets	brass, set of 12, 1 g - 500 g	4
33	Meter sticks	wooden	15
34	Microscope maintenance kit		1
35	Microscopes, compound with light	4x, 10x, 40 x lenses	10
36	Microscopes, dissecting	inbase, incandescent illumination, 48 mm x 40x	4
37	Model, flower	plastic, 40 cm x 64 cm	1
38	Model, human skeleton	Adult size	1
39	model, human torso	plastic, life size	1
40	Mortar and pestle set		15
41	Multimeter - digital		2
42	Plastic tubing	25 ft.	1
43	Protractors	plastic	30
44	Racks, test tube	polypropylene - all sizes	10
45	Rocket launchers	launch plastic bottles	14
46	Rubber stoppers	set of assorted sizes/2 lbs.	1
47	Rulers	metric	30
48	Scissors	general purpose, paper based labs	30
49	Spring scale, pull type	capacity: 1000g/10 newtons	1 per 2 students
50	Stirring rods	glass, bundle of 50	1
51	Stopwatches		15
52	Tape measures, set of 10	metric on one side, standard on the other	1 per 2 students
53	Test tubes	20 x 150mm/ set of 72	1
54	Thermometers	°C and °F dual	15
55	Timer, digital		5
56	Washers	bags of 100	2
57	Wire, Copper	100 ft.rolls	3

Science- Grade 7 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
1.	Balances, Triple Beam	student grade	7
2.	Balances, Electronic	0.1 g sensitivity	1
3.	Balls, set	set of 12, steel, wood, cork, brass, aluminum, lead	4
4.	Beaker set, plastic	100 mL, 500mL, 250 mL, 100 mL, 50 mL	7
5.	Beaker tongs		1 per 2 students
6.	Blocks, friction	set of blocks with varying surfaces	7
7.	Butane gas lighter	refillable	5
8.	Butane gas lighter, canisters	refills	5
9.	Calculators	TI-73 or equivalent	1 per student
10.	Calorimeter	student, double-walled	7
11.	Chart, periodic table		1
12.	Cheesecloth	4 sq. meters	1
13.	Clamps, test tube		1 per 2 students
14.	Compasses, drawing		1 per 2 students
15.	Corks	set of 100-assorted sizes	1
16.	Digital dissecting microscope	ex. Flexcam, Motic	1
17.	Dissection kits	Ruler, scalpel, scissors, forceps, probes/needles	15
18.	Dissection trays	Sturdy plastic pan with lid - reusable	10
19.	Electrostatic cloths	silk, wool, fur - set	1
20.	Fire blanket(s)	Wall mounted in lab area	2
21.	Fire extinguisher	ABC triclass	1
22.	First aid kit	Bandages, gauze, plastic box, OSHA compliant	1
23.	Flashlights	plastic	14
24.	Funnels	6 - assorted sizes	1 set
25.	Funnels	Polypropylene - 65 mm dia./set of 12	1
26.	Gloves, latex /boxes of 100	latex, or vinyl	5
27.	Googles, safety		28
28.	Graduated Cylinder set, plastic	100 mL, 50 mL, 25 mL, 10 mL	14

Science- Grade 7 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
29 .	Hearts, pig	with aorta, set of 10	1
30 .	Hot Plates		1 per 4 students
31 .	Laboratory cart		1
32 .	Mass sets	brass, set of 12, 1 g - 500 g	4
33 .	Meter sticks	wooden	15
34 .	Microscopes, compound with light	4x, 10x, 40 x lenses	10
35 .	Microscope slides-plastic	disposable	1000
36 .	Microscope maintenance kit		1
37 .	Microscopes, stereo dissecting	inbase, incandescent illumination, 48 mm x 40x	4
38 .	Model, Human Skeleton	Adult size	1
39 .	Model, Human torso	plastic, life size	1
40 .	Mortar and pestle set		15
41 .	Multimeter - digital		2
42 .	Prepared slide assortment		1 per 2 students
43 .	Preserved specimens	teacher's choice	1 per 2 students
44 .	Protractors	plastic	30
45 .	Racks, test tube	polypropylene - all sizes	10
46 .	Rocket launchers	launch plastic bottles	14
47 .	Rubber stoppers	set of assorted sizes/2 lbs.	1
48 .	Rubber tubing		25 ft
49 .	Rulers	Metric	30
51 .	Scissors	general purpose, paper based labs	30
52 .	solar cell kit		1 per 4 students
53 .	Spring scale, pull type	capacity: 1000g/10 newtons	1 per 2 students
54 .	Steel Wool	1 box	
55 .	Stirring rods	glass, bundle of 50	1
56 .	Stopwatches		1 per 2 students
57 .	Tape measures, set of 10	metric on one side, standard on the other	1 per 2 students

Science- Grade 7 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
58	Test tube racks	polypropylene, holds various sizes	1 per 2 students
59	Test tubes	20 x 150mm/ set of 72	1
60	Thermometers	°C and °F dual	15
61	Timer, digital		1
62	Trays	large plastic	1 per 2 students
63	Washers	bags of 100	2
64	Weather watch kit	anemometer, barometer, psychrometers, gauge	1

Science- Grade 8 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
1	AC/DC power supply		1
2	Acrylic prism set		4 sets
3	Balances, Triple Beam	student grade	7
4	Balances, Electronic	0.1 g sensitivity	1
5	Balls, set	set of 12, steel, wood, cork, brass, aluminum, lead	4
6	Beaker set, plastic	100 mL, 500mL, 250 mL, 100 mL, 50 mL	7
7	Beaker tongs		1 per 2 students
8	Blocks, friction	set of blocks with varying surfaces	7
9	Bromothymol blue	Indicator	100 ml
10	Brushes, flask	set /12	1
11	Brushes, test tube	set/12	1
12	Brushes, beaker		10
13	Butane gas lighter	refillable	5
14	Butane gas lighter, canisters	refills	5
15	Calculators	TI-73 or equivalent	28
16	Calorimeter	student, double-walled	7
17	Chart, periodic table		1 per classroom
18	Cheesecloth	4 sq. meters	1
19	Clamps-test tube		1 per 2 students
20	Compasses, drawing		1 per 2 students
21	Corks	set of 100-assorted sizes	1
22	Digital dissecting microscope	ex. Flexcam, Motic	1
23	Electric Snap Circuits	kit of parts to create circuits	5 per classroom
24	Fire blanket(s)	Wall mounted in lab area	2
25	Fire extinguisher	ABC triclass	1
26	First aid kit	Bandages, gauze, plastic box, OSHA compliant	1
27	Flashlights and Batteries	plastic	14
28	Funnels	Polypropylene - 65 mm dia./set of 12	1
29	Gloves, latex /boxes of 100	latex, or vinyl	5
30	Googles, safety		28

Science- Grade 8 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
31	Graduated cylinder set, plastic	100 mL, 50 mL, 25 mL, 10 mL	14
32	Hot Plates		1 per 4 students
33	Laboratory cart		1
34	Mass sets	brass, set of 12, 1 g - 500 g	4
35	Meter sticks	wooden	15
36	Microscope maintenance kit		1
37	Microscopes, compound with light	4x, 10x, 40 x lenses	10
38	Multimeter - digital		2
39	pH meters		1 per classroom
40	pH paper	Vial of 100, red and blue	2 per classroom
41	Phenol red	Indicator 2%	100 ml
42	Phenolphthalein	Indicator 1%	100 ml
43	Pipe Cleaners	2 boxes	
44	Plastic spoons	6 boxes of 50	6 boxes
45	Protractors	plastic	30
46	PTC paper	Genetic test	Three tubes of 100 strips
47	Racks, test tube	polypropylene - all sizes	10
48	Refrigerator	dorm size	1
49	Rubber Bands	1 bag	
50	Rubber stoppers	set of assorted sizes/2 lbs.	1
51	Rubber tubing		25 ft
52	Rulers	Metric	30
53	Scales, spring		14
54	Scissors	general purpose, paper based labs	30
55	Spring devices - Slinky or equivalent		1 per 4 students
56	Soils Porosity & Permeability	kit measuring various soils	1 per classroom
57	Spring scale, pull type	capacity: 1000g/10 newtons	1 per 2 students
58	Stirring rods	glass, bundle of 50	1
59	Stopwatch		15
60	Straws	pkg of 100	3

Science- Grade 8 Equipment List

Item Number	Item Name	Specifications & Descriptions	Number per Classroom
61	Stream table kit	plastic, tubing, water connection, sand	set of 4
62	Tape measures, set of 10	metric on one side, standard on the other	1 per 2 students
63	Test tubes	20 x 150mm/ set of 72	1
64	Thermometers	°C and °F dual	15
65	Timer, digital		2
66	Washers	2 bags of 100	
67	Wire	3 rolls	