



Outdoor Classroom Project Plan: Materials List & Budget for Large Songbird Sanctuary

A **Songbird Sanctuary** is an area that provides a home or habitat (food, water, shelter & places to raise young) for songbirds. Native trees, shrubs, forbs and vines produce mast (nuts or fruit) that provide food for backyard birds while bird feeders can supplement their food sources. Trees and other plants can also provide shelter and places to raise their young, as well as artificial nesting boxes for cavity-nesting birds such as bluebirds or wrens. Water can be provided in bird baths, creeks or ponds.

❖ Habitat Requirements:

- Low Traffic Flow** (so that students are not continuously walking by the bird feeders and/or nesting boxes)
- Established “Cover”** (if you have existing bushes or trees so the birds will feel safe from predators you will not need to purchase them for your Materials List below)
- Area Approved for Digging** (areas where a tree(s) will be planted must not have any utility lines that could be damaged due to digging or from the root system(s) of the tree(s))
- Full Sun or Full Shade** (be sure to choose the appropriate plants based on your sunlight conditions)

❖ Example Simple Songbird Sanctuary & Educational Sign:



Welcome to our Songbird Sanctuary

We provide habitat (a home) for songbirds.



Plants, bushes and trees provide sources of food and shelter.



Bird feeders provide black oil sunflower seeds and suet.

Trees and nesting boxes provide places for building nests and raising their young.



Our pond and bird bath provide a source of water for drinking and bathing.



Scan this QR Code to learn more about songbirds.
Enjoy nature's beauty!
Protect it from litter and vandalism!





OC Project Plan: Example Large Sanctuary Materials List & Budget

❖ Estimated Cost:

- Large Songbird Sanctuary w/ 3-sided garden against the school building (3'8" x 13' 8"): **\$1,785-1,970**
- Large Songbird Sanctuary w/ 4-sided garden away from school building (4'8" x 13'8"): **\$1,935-2,120**

❖ Materials & Supplies with Estimated Budget

Example Large Songbird Sanctuary with 3'8 x 13'8 Garden simple sanctuary with 3-sided wildflower garden against school building (actual size: <i>(3 ft (W) x 12 ft 4 in (L) x 6 in (D) ~19 CF)</i> that provides seeds for birds in fall				
Station	Materials & Supplies	Estimated Cost	Example Source	Final Cost
L-3-Sngbrd	(1) Can of Rust-Oleum Professional White Water-based Marking paint (for laying out garden) @~\$9.98 ea	\$10	Lowe's Item #429750	
L-3-Sngbrd	(40) Old Manor 12-in L x 4-in H x 8-in D Concrete Retaining Wall Blocks (to create three sides of raised bed against school building) @~\$2.88 ea	\$115 total	Lowe's Item #477088	
L-3-Sngbrd	(1) 6'x50' Sta-Green Professional Landscape Fabric (weed barrier) (16' used for this garden) @~\$33.98 ea	\$35	Lowe's Item #510606	
L-3-Sngbrd	(4) 32-Quart (1CF) Bags of Evergreen Organic Potting Soil Mix @~\$6.38 ea (for garden)	\$25 total	Lowe's Item #380608	
L-3-Sngbrd	(7) 1 CF/32 Qt Bags of Evergreen Organic Top Soil @~\$2.18 each	\$15 total	Lowe's Item #648834	
L-3-Sngbrd	(14) 1 CF Bags of Evergreen Organic Compost and Manure @~\$3.68 ea (2 for garden, 1 per bush, 2 per tree)	\$55 total	Lowe's Item #380606	
L-3-Sngbrd	(3) 2 CF Bags of Evergreen Organic Drainage and Aeration Soil Conditioner @~\$4.58 ea	\$15 total	Lowe's Item #648829	
L-3-Sngbrd	(2) Mature Trees (see list below on pg 6) @~\$125 ea	\$250 total	Nursery via OC Consultant	
L-3-Sngbrd	(4) Fruit-producing Bushes (need male & female of same species-see list below on pg 6) @~\$30 ea	\$120 total	Nursery via OC Consultant	
L-3-Sngbrd	(4) Evergreen Shrubs (see list below on pg 6) @~\$30 ea	\$120 total	Nursery via OC Consultant	
L-3-Sngbrd	(16) Native Perennials ((4) each of Purple Coneflower, Black-Eyed Susan, Narrowleaf Sunflower, Cardinal Flower) 5" pots @~\$7 ea	\$110 total	Nursery via OC Consultant	
L-3-Sngbrd	(7) 2 CF Bags of Natural Dark Brown Pine Bark Mulch (7 for garden; 4 for trees/bushes/ shrubs) @~3.48 ea **do NOT get black mulch as it gets hot and kills plants**	\$25 total	Lowe's Item #92118	
L-3-Sngbrd	(1) Package of 40 6" Black Plastic Landscape Edging Pieces (18 to create (3) 3 ft dividers between the four plant species to make plant ID & weeding easier) @~\$21.98 ea	\$20	Lowe's Item #379805	





OC Project Plan: Example Large Sanctuary Materials List & Budget

❖ Materials & Supplies with Estimated Budget (cont.)

L-3-Sngbrd	(4) Severe Weather 4-in x 4-in x 6-ft #2 Ground Contact Wood Pressure Treated Lumber (to mount birdhouses) @ ~\$9.78 ea	\$40 total	Lowe's Item #312530	
L-3-Sngbrd	(2) Woodlink 8-in H Tan Wood Wren Nesting Box Bird House @ ~\$29.95 ea	\$50 total	Lowe's Item #1287037	
L-3-Sngbrd	(2) National Audubon Society National Audubon DIY Bluebird House Kit with Toy @ ~\$26 ea	\$50 total	Lowe's Item #3786219	
L-3-Sngbrd	(4) 18 in. Dia Black Powder Coat Squirrel Deflector For 4 x 4 Post (to keep predators from climbing posts) @ ~\$43.36 ea	\$175	Home Depot Internet #205188267	
L-3-Sngbrd	(2) 50-lb bag Fast Setting Concrete Mix (for birdhouse posts) @ ~\$6.71 ea	\$15 total	Lowe's Item #10437	
L-3-Sngbrd	(1) Box of Hillman 8 x 2-in Wood To Wood Deck Screws (attach boxes posts) <i>*will not need all 50 for this project, hold onto extras for other OC projects</i> @ ~\$6.98 ea	\$5	Lowe's Item #755728	
L-3-Sngbrd	(2) 26-in H Natural Concrete Birdbath Pedestal (must be sturdy) (bird bath pedestal and bowl sold separately) @ ~\$19.98 ea	\$40 total	Lowe's Item #10011	
L-3-Sngbrd	(2) 4-in H Natural Concrete Birdbath Bowl @ ~\$19.98 ea	\$40 total	Lowe's Item #10014	
L-3-Sngbrd	(2) Mademax Solar Bird Bath Fountain Pump, Upgrade 1.4W Solar Fountain with 4 Nozzle, Free Standing Floating Solar Powered Water Fountain Pump @ ~\$16.79 ea	\$35	Amazon.com: Mademax Solar Bird Bath Fountain Pump, Upgrade 1.4W Solar Fountain with 4 Nozzle, Free Standing Floating Solar Powered Water Fountain Pump for Bird Bath, Garden, Pond, Pool, Outdoor : Patio, Lawn & Garden	
L-3-Sngbrd	(2) Garden Accents 84-in Black Powder Coated Metal Scroll Shepherd's Hook @ ~\$26.98 ea	\$55 total	Lowe's Item #82066	
L-3-Sngbrd	(2) 18 in. Wrap Around Squirrel Baffler (to keep squirrels from climbing feeder station pole) @ ~\$36.94 ea	\$75 total	Home Depot Internet #203074700	
L-3-Sngbrd	(2) HomeGrown Eastern Red Cedar Wood Seed/Suet Bird Feeder @ ~\$12.98 ea	\$25 total	Lowe's Item #791983	
L-3-Sngbrd	(2) Style Selections Green Plastic Hopper Bird Feeder @ ~\$15.98 ea	\$30 total	Lowe's Item #1508755	
L-3-Sngbrd	(2) Perky-Pet Pinch-Waist Red Glass Nectar Hummingbird Feeder @ ~\$16.97 ea	\$35 total	Lowe's Item #869038	
L-3-Sngbrd	(4) National Audubon Society 11-oz Suet (multiple varieties available) @ ~\$2.28 ea	\$10 total (recurring)	Lowe's Item #926626	
L-3-Sngbrd	(1) National Audubon Society 40-lb Black Oil Sunflower Bird Seed (smaller bags are available if needed based on storage abilities and use) @ ~\$36.98 ea	\$35 (recurring)	Lowe's Item #926646	





OC Project Plan: Example Large Sanctuary Materials List & Budget

❖ Materials & Supplies with Estimated Budget (cont.)

L-3-Sngbrd	(1) Birdhouse Spy Cam BCAMHEHD Hawk Eye HD Camera @~\$129 ea	\$130 (Optional)	Amazon.com: Birdhouse Spy Cam BCAMHEHD Hawk Eye HD Camera (Set of 1) : Patio, Lawn & Garden	
L-3-Sngbrd	(1) 100ft HD Audio Video Security Camera BNC Power Cable Copper - Gift BNC - Pre-Made All-in-One Extension Wire CCTV Cord with BNC RCA Connectors 30 m 3-in-1 @~\$18.49 ea	\$20 (Optional)	Amazon.com: USA Sales Group 100ft HD Audio Video Power Security Camera Cable Copper for CCTV DVR Surveillance System, Wire RCA Cord Extension- Gift BNC Connectors- 30 m 3-in-1 Pre-Made All-in-One : Electronics	
L-3-Sngbrd	(7-10) Plant ID Signs (one for each plant species) @~\$6 ea	\$45-70 total	https://www.alabamawildlife.org/oc-dig-into-plants/ for details	
L-3-Sngbrd	(7-10) Biomarkers to hold Plant ID signs (13" stake with a 2" x 4" plate) @ ~\$3 ea (includes S&H)	\$20-30 total	AWF OC Consultant or https://mcgbiomarkers.com/shop/	
L-3-Sngbrd	Educational Sign (to explain Songbird Habitat)	\$75	Ask OC Consultant about https://www.alabamawildlife.org/oc-signs/	
L-3-Sngbrd	(1) 6 ft. U-Post for Fence (for educational sign) @~\$10.69 ea	\$10	Lowe's Item #493054	
L-3-Sngbrd	(1) Hillman 1/4-in x 1-1/2-in Zinc-Plated Coarse Thread Hex Bolt (2-Count) @~\$0.88 ea	\$5 total	Lowe's Item #137634	
L-3-Sngbrd	(2) Hillman 1/4-in x 20 Zinc-Plated Steel Hex Nut @~\$0.10 ea		Lowe's Item #63301	
L-3-Sngbrd	(2) Hillman 1/4-in Zinc-plated Standard Flat Washer @~\$0.15 ea		Lowe's Item #63306	
Total Estimated Cost: \$1,785-\$1,970				

Example Large Songbird Sanctuary with 4'8 x 13'8 Garden simple sanctuary w/ 4-sided wildflower garden away from school building <i>(Actual Size: 4 ft 8 in (W) x 13 ft 8 in (L) x 6" (D) ~20 CF)</i> that provides seeds for birds in fall				
Station	Materials & Supplies	Estimated Cost	Example Source	Final Cost
L-4-Sngbrd	(1) Can of Rust-Oleum Professional White Water-based Marking paint (for laying out garden) @~\$9.98 ea	\$10	Lowe's Item #429750	
L-4-Sngbrd	(70) Old Manor 12-in L x 4-in H x 8-in D Concrete Retaining Wall Blocks (to create three sides of raised bed against school building) @~\$2.88 ea	\$200 total	Lowe's Item #477088	
L-4-Sngbrd	(1) 6'x50' Sta-Green Professional Landscape Fabric (weed barrier) (16' used for this garden) @~\$33.98 ea	\$35	Lowe's Item #510606	





OC Project Plan: Example Large Sanctuary Materials List & Budget

❖ Materials & Supplies with Estimated Budget (cont.)

L-4-Sngbrd	(4) 32-Quart (1CF) Bags of Evergreen Organic Potting Soil Mix @~\$6.38 ea (for garden)	\$25 total	Lowe's Item #380608	
L-4-Sngbrd	(8) 1 CF/32 Qt Bags of Evergreen Organic Top Soil @~\$2.18 each	\$15 total	Lowe's Item #648834	
L-4-Sngbrd	(14) 1 CF Bags of Evergreen Organic Compost and Manure @~\$3.68 ea (2 for garden, 1 per bush, 2 per tree)	\$55 total	Lowe's Item #380606	
L-4-Sngbrd	(3) 2 CF Bags of Evergreen Organic Drainage and Aeration Soil Conditioner @~\$4.58 ea	\$15 total	Lowe's Item #648829	
L-4-Sngbrd	(2) Mature Trees (see list below on pg 6) @~\$125 ea	\$250 total	Nursery via OC Consultant	
L-4-Sngbrd	(4) Fruit-producing Bushes (need male & female of same species-see list below on pg 6) @~\$30 ea	\$120 total	Nursery via OC Consultant	
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L-4-Sngbrd	(20) Native Perennials ((4) each of Purple Coneflower, Black-Eyed Susan, Narrowleaf Sunflower, Cardinal Flower) 5" pots @~\$7 ea	\$140 total	Nursery via OC Consultant	
L-4-Sngbrd	(7) 2 CF Bags of Natural Dark Brown Pine Bark Mulch (3 for garden; 4 for trees/bushes/ shrubs) @~3.48 ea **do NOT get black mulch as it gets hot and kills plants**	\$25 total	Lowe's Item #92118	
L-4-Sngbrd	(1) Package of 40 6" Black Plastic Landscape Edging Pieces (18 to create (3) 3 ft dividers between the four plant species to make plant ID & weeding easier) @~\$21.98 ea	\$20	Lowe's Item #379805	
L-4-Sngbrd	(4) Severe Weather 4-in x 6-ft #2 Ground Contact Wood Pressure Treated Lumber (to mount birdhouses) @~\$9.78 ea	\$40 total	Lowe's Item #312530	
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L-4-Sngbrd	(2) National Audubon Society National Audubon DIY Bluebird House Kit with Toy @ ~\$26 ea	\$50 total	Lowe's Item #3786219	
L-4-Sngbrd	(4) 18 in. Dia Black Powder Coat Squirrel Deflector For 4 x 4 Post (to keep predators from climbing posts) @ ~\$43.36 ea	\$175 total	Home Depot Internet #205188267	
L-4-Sngbrd	(2) 50-lb bag Fast Setting Concrete Mix (for birdhouse posts) @ ~\$6.71 ea	\$15 total	Lowe's Item #10437	
L-4-Sngbrd	(1) Box of Hillman 8 x 2-in Wood To Wood Deck Screws (attach boxes posts) *will not need all 50 for this project, hold onto extras for other OC projects @ ~\$6.98 ea	\$5	Lowe's Item #755728	
L-4-Sngbrd	(2) 26-in H Natural Concrete Birdbath Pedestal (must be sturdy) (bird bath pedestal and bowl sold separately) @ ~\$19.98 ea	\$40 total	Lowe's Item #10011	





OC Project Plan: Example Large Sanctuary Materials List & Budget

❖ Materials & Supplies with Estimated Budget (cont.)

L-4-Sngbrd	(2) 4-in H Natural Concrete Birdbath Bowl @ ~\$19.98 ea	\$40 total	Lowe's Item #10014	
L-4-Sngbrd	(2) Mademax Solar Bird Bath Fountain Pump, Upgrade 1.4W Solar Fountain with 4 Nozzle, @ ~\$16.79 ea	\$35 total	Amazon.com: Mademax Solar Bird Bath Fountain Pump, Upgrade Solar Fountain with 6 Nozzle, Free Standing Floating Solar Powered Water Fountain Pump for Bird Bath, Garden, Pond, Pool, Outdoor : Patio, Lawn & Garden	
L-4-Sngbrd	(2) Garden Accents 84-in Black Powder Coated Metal Scroll Shepherd's Hook @ ~\$26.98 ea	\$55 total	Lowe's Item #82066	
L-4-Sngbrd	(2) 18 in. Wrap Around Squirrel Baffler (to keep squirrels from climbing feeder station pole) @ ~\$36.94 ea	\$75 total	Home Depot Internet #203074700	
L-4-Sngbrd	(2) HomeGrown Eastern Red Cedar Wood Seed/Suet Bird Feeder @ ~\$12.98 ea	\$25 total	Lowe's Item #791983	
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L-4-Sngbrd	(4) National Audubon Society 11-oz Suet (multiple varieties available) @ ~\$2.28 ea	\$10 total (recurring)	Lowe's Item #926626	
L-4-Sngbrd	(1) National Audubon Society 40-lb Black Oil Sunflower Bird Seed (smaller bags are available if needed based on storage abilities and use) @ ~\$36.98 ea	\$40 (recurring)	Lowe's Item #926646	
L-4-Sngbrd	(1) Birdhouse Spy Cam BCAMHEHD Hawk Eye HD Camera @ ~\$129 ea	\$130 (Optional)	Amazon.com: Birdhouse Spy Cam BCAMHEHD Hawk Eye HD Camera (Set of 1) : Patio, Lawn & Garden	
L-4-Sngbrd	(1) 100ft HD Audio Video Security Camera BNC Power Cable Copper - All-in-One Extension Wire CCTV Cord with BNC RCA Connectors @ ~\$18.49 ea	\$20 (Optional)	Amazon.com: USA Sales Group 100ft HD Audio Video Power Security Camera Cable Copper for CCTV DVR Surveillance System, Wire RCA Cord Extension- Gift BNC Connectors- 30 m 3-in-1 Pre-Made All-in-One : Electronics	
L-4-Sngbrd	(7-10) Plant ID Signs (one for each plant species) @ ~\$6 ea	\$45-70 total	https://www.alabamawildlife.org/oc-dig-into-plants/ for details	
L-4-Sngbrd	(7-10) Biomarkers to hold Plant ID signs (13" stake with a 2" x 4" plate) @ ~\$3 ea (includes S&H)	\$20-30 total	AWF OC Consultant or https://mcgbiomarkers.com/show/	
L-4-Sngbrd	Educational Sign (to explain Songbird Habitat)	\$75	Ask OC Consultant about https://www.alabamawildlife.org/oc-signs/	
L-4-Sngbrd	(1) 6 ft. U-Post for Fence (for educational sign) @ ~\$10.69 ea	\$10	Lowe's Item #493054	





OC Project Plan: Example Large Sanctuary Materials List & Budget

❖ Materials & Supplies with Estimated Budget (cont.)

L-4-Sngbrd	(1) Hillman 1/4-in x 1-1/2-in Zinc-Plated Coarse Thread Hex Bolt (2-Count) @~\$0.88 ea	\$5 total	Lowe's Item #137634	
L-4-Sngbrd	(2) Hillman 1/4-in x 20 Zinc-Plated Steel Hex Nut @~\$0.10 ea		Lowe's Item #63301	
L-4-Sngbrd	(2) Hillman 1/4-in Zinc-plated Standard Flat Washer @~\$0.15 ea		Lowe's Item #63306	
Total Estimated Cost: \$1,905-\$2,090				

❖ Songbird Sanctuary Plant Suggestions:

- *Always use native plants when possible. Avoid non-native, invasive species, such Privet and Bradford Pear, that will take over and destroy habitat instead of enhancing it! Select one species of tree or bush and purchase a male and female to increase chances of reproduction.²⁰
- Customized plant identification signs with unique scannable QR Codes linked to webpages on AWF's website are available for the **bolded species below**. The webpages provide specific information about that plant species including a description of the plant, photos of the plant, maintenance tips and the ecological benefits that species provides.

Small Trees (12-36 ft)	Fruit-Bearing Bushes	Evergreen Bushes	Vines
Chickasaw Plum, <i>Prunus angustifolia</i>	American Beautyberry, <i>Callicarpa americana</i>	American Holly, <i>Ilex opaca</i>	Carolina Jessamine, <i>Gelsemium sempervirens</i>
Eastern Redbud, <i>Cercis canadensis</i>	Blueberry, <i>Vaccinium corymbosum</i>	Yaupon Holly, <i>Ilex vomitoria</i>	Coral Honeysuckle, <i>Lonicera sempervirens</i>
Flowering Dogwood, <i>Cornus florida</i>	Elderberry, <i>Sambucus nigra</i> spp. <i>canadensis</i>	Wax Myrtle, <i>Marella cerifera</i>	Crossvine, <i>Bignonia capreolata</i>
PawPaw, <i>Asimina triloba</i>	Maple-leaf Arrow-wood, <i>Viburnum acerifolium</i>	Forbs/Wildflowers	Purple Passion Flower, <i>Passiflora incarnata</i>
Red Buckeye, <i>Aesculus pavia</i>	Red Chokeberry, <i>Photinia pyrifolia</i>	Beebalm, <i>Monarda fistulosa</i>	Trumpet Creeper, <i>Campsis radicans</i>
Large Trees (40-80 ft)	Serviceberry, <i>Amelanchier arborea</i>	Black-eyed Susan, <i>Rudbeckia hirta</i>	Virginia Creeper, <i>Parthenocissus quinquefolia</i>
Black Cherry, <i>Prunus serotina</i>	Southern Spicebush, <i>Lindera melissifolia</i> (Walter) Blume	Cardinal Flower, <i>Lobelia cardinalis</i>	Grasses
Common Hackberry, <i>Celtis occidentalis</i> L.	Sparkleberry, <i>Vaccinium arboreum</i>	Great Blue Lobelia, <i>Lobelia siphilitica</i>	Little Bluestem, <i>Schizachyrium scoparium</i>
Eastern Redcedar, <i>Juniperus virginiana</i> L.	Sweet Shrub, <i>Calycanthus Floridus</i>	Lanceleaf Tickseed, <i>Coreopsis lanceolata</i>	Pink Muhly Grass, <i>Muhlenbergia capillaris</i>
Red Maple, <i>Acer rubrum</i> L.	Virginia Sweet Spire, <i>Itea virginica</i>	Purple Coneflower, <i>Echinacea purpurea</i>	Switchgrass, <i>Panicum virgatum</i>

