



# Outdoor Classroom Project Plan: Materials List & Budget for Butterfly Garden

A Butterfly Habitat should provide food, water, and shelter for a wide variety of butterflies and their larvae (or caterpillars). Butterflies will most often search flowering wildflowers, bushes, and trees for their main food source (nectar) using their tube-like “tongues” called a proboscis. However, some species will acquire the minerals and nutrients that they need by probing the ground around decomposing plants or animals or around animal excrement with their proboscises. Nectar, shallow puddles, and drops of rain or dew provide the water that butterflies need to survive. Different species of butterflies only lay their eggs on specific species of plants (referred to as “host plants”) and the caterpillars will only eat these plants before creating a chrysalis to go through metamorphosis into an adult butterfly. Butterflies typically take refuge from inclement weather or predators in bushes or trees.

## ❖ Habitat Requirements:

- Native flowering wildflowers, bushes, and trees that produce nectar
- Native “host plants” that caterpillars eat (*see list below*)
- Puddling stations for butterflies that prefer to get their nutrition from excrement covered in sand
- Bushes and trees for cover from inclement weather and predators
- Dark colored stones where butterflies can warm their bodies
- Full sun for 6-8 hours per day for optimal plant growth

## ❖ Example Pollinator Garden Pictures & Educational Sign:





## OC Project Plan: Example Butterfly Garden Materials List & Budget

### ❖ Estimated Cost:

- Example 3-sided garden against the school building (3'8" x 13' 8"): **\$870-\$905**
- Example 4-sided garden away from the school building (4'8" x 13'8"): **\$990-\$1,025**

### ❖ Materials & Supplies with Estimated Budget:

<b>Example 3-sided Butterfly Garden</b>				
(Actual Size: 3 ft 8 in (W) x 13 ft 8 in (L) x 6 in (D) 3-sided raised bed garden against school building → ~19 CF)				
Station	Materials & Supplies	Estimated Cost	Example Source	Final Cost
3-Bttrfly	(1) Can of Rust-Oleum Professional White Water-based Marking Paint (for laying out garden) @~\$9.98 ea	\$10	Lowes's Item #429750	
3-Bttrfly	(40) 4" x 12" Retaining Wall Blocks (to create three sides of raised bed against school building) @~\$2.88 ea	\$115 total	Lowes's Item #477088	
3-Bttrfly	(1) 6'x50' Sta-Green Professional Landscape Fabric (weed barrier) (16' used for this garden) @~\$33.98 ea	\$35	Lowes's Item #510606	
3-Bttrfly	(4) 32-Quart (1CF) Bags of Evergreen Organic Potting Soil Mix @~\$6.38 ea (for garden)	\$25 total	Lowes's Item #380608	
3-Bttrfly	(7) 1 CF/32 Qt Bags of Evergreen Organic Top Soil @~\$2.18 each	\$15 total	Lowes's Item #648834	
3-Bttrfly	(10) 1 CF Bags of Evergreen Organic Compost and Manure @~\$3.68 ea (2 for garden, 1 per bush, 2 per tree)	\$40 total	Lowes's Item #380606	
3-Bttrfly	(3) 2 CF Bags of Evergreen Organic Drainage and Aeration Soil Conditioner @~\$4.58 ea	\$15 total	Lowes's Item #648829	
3-Bttrfly	(2) Native Oaks, Dogwoods, or Tulip Poplars (*Optional - plant in or near OC as host plants & cover) @~\$75 ea	*\$150 total	Nursery via OC Consultant	
3-Bttrfly	(2) Spicebushes or (2) Wax Myrtles (*Optional - plant as host plants near garden in OC if possible) @~\$30 ea	*\$60 total	Nursery via OC Consultant	
3-Bttrfly	(2) Sweet Pepperbushes or (2) Butterfly Bushes (plant as nectar plants near garden) @~\$30 ea	\$60 total	Nursery via OC Consultant	
3-Bttrfly	(8) Nectar Plants (2 different species, 4 plants of each species – see list below) @~\$7 ea	\$55 total	Nursery via OC Consultant	
3-Bttrfly	(8) Host Plants (2 different species, 4 plants of each species – see list below) @~\$7 ea	\$55 total	Nursery via OC Consultant	
3-Bttrfly	(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	Lowes's Item# #379805	





## OC Project Plan: Example Butterfly Garden Materials List & Budget

### ❖ Materials & Supplies with Estimated Budget (cont.):

3-Bttrfly	(6) 2 CF Bags of Evergreen Natural Dark Brown Pine Bark Mulch (3 for garden, rest for trees/bushes) @~\$3.48 ea <b>**do NOT get black mulch as it gets hot and kills plants**</b>	\$20 total	Lowe's Item #92118	
3-Bttrfly	(2) 12-18" wide Terracotta Clay Plant Saucer (to create puddling stations) @~\$14.48 ea	\$30 total	Lowe's Item #94459	
3-Bttrfly	(1) .5 CF/50 Lb Bag of American Countryside All-purpose Sand (for puddling stations) @~\$5.18 ea	\$5	Lowe's Item #104898	
3-Bttrfly	(1) Black Steel Garden Trellis (for passionflower vines) @~\$16.48 ea	\$15	Lowe's Item #397037	
3-Bttrfly	(6-10) Plant ID Signs (one for each plant species) @~\$6 ea	\$35 - \$60 total	<a href="https://www.alabamawildlife.org/oc-dig-into-plants/">https://www.alabamawildlife.org/oc-dig-into-plants/</a> for details	
3-Bttrfly	(6-10) 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 <a href="https://mcgbiomarkers.com/shop/">https://mcgbiomarkers.com/shop/</a>	
3-Bttrfly	(1) 6 ft. U-Post for Fence (for educational sign) @~\$10.69 ea	\$10	Lowe's Item#: 493054	
3-Bttrfly	Educational Sign (for the life cycle of butterflies)	\$75	Ask OC Consultant about <a href="https://www.alabamawildlife.org/oc-signs/">https://www.alabamawildlife.org/oc-signs/</a>	
3-Bttrfly	(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	
3-Bttrfly	(2) Hillman 1/4-in x 20 Zinc-Plated Steel Hex Nut @~\$0.10 ea		Lowe's Item #63301	
3-Bttrfly	(2) Hillman 1/4-in Zinc-Plated Standard Flat Washer @~\$0.15 ea		Lowe's Item #63306	
<b>Total Estimated Cost: \$870-\$905</b>				





## OC Project Plan: Example Butterfly Garden Materials List & Budget

### ❖ Materials & Supplies with Estimated Budget (cont.)

<b>Example 4-sided Butterfly Garden</b>				
(Actual Size: 4 ft 8 in (W) x 13 ft 8 in (L) x 6" (D) 4-sided raised bed garden → ~20 CF)				
Station	Materials & Supplies	Estimated Cost	Example Source	Final Cost
4-Bttrfly	(1) Can of Rust-Oleum Professional White Water-based Marking Paint (for laying out garden) @~\$9.98 ea	\$10	Lowe's Item# 429750	
4-Bttrfly	(70) 4" x 12" Retaining Wall Blocks (to create four sides of raised bed garden) @~\$2.88 ea	\$200 total	Lowe's Item# 477088	
4-Bttrfly	(1) 6'x50' Sta-Green Professional Landscape Fabric (weed barrier) (16' used for this garden) @~\$33.98 ea	\$35	Lowe's Item# 510606	
4-Bttrfly	(4) 32-Quart (1CF) Bags of Evergreen Organic Potting Soil Mix @~\$6.38 ea (for garden)	\$25 total	Lowe's Item #380608	
4-Bttrfly	(8) 1 CF/32 Qt Bags of Evergreen Organic Top Soil @~\$2.18 each	\$20 total	Lowe's Item# 648834	
4-Bttrfly	(10) 1 CF Bags of Evergreen Organic Compost and Manure @~\$3.68 ea (2 for garden, 1 per bush, 2 per tree)	\$40 total	Lowe's Item #380606	
4-Bttrfly	(3) 2 CF Bags of Evergreen Organic Drainage and Aeration Soil Conditioner @~\$4.58 ea	\$15 total	Lowe's Item# 648829	
4-Bttrfly	(2) Native Oaks, Dogwoods, or Tulip Poplars (*Optional - plant in or near OC as host plants & cover) @~\$75 ea	*\$150 total	Nursery via OC Consultant	
4-Bttrfly	(2) Spicebushes or (2) Wax Myrtles (*Optional - plant as host plants near garden in OC if possible) @~\$30 ea	*\$60 total	Nursery via OC Consultant	
4-Bttrfly	(2) Sweet Pepperbushes or (2) Butterfly Bushes (plant as nectar plants near garden) @~\$30 ea	\$60 total	Nursery via OC Consultant	
4-Bttrfly	(10) Nectar Plants (2 different species with 5 of each species – see list below) @~\$7 ea	\$70 total	Nursery via OC Consultant	
4-Bttrfly	(10) Host Plants (2 different species with 5 of each species – see list below) @~\$7 ea	\$70 total	Nursery via OC Consultant	
4-Bttrfly	(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	
4-Bttrfly	(6) 2 CF Bags of Natural Dark Brown Pine Bark Mulch (3 for garden, rest for trees/bushes) @~\$3.48 ea <b>**do NOT get black mulch as it gets hot and kills plants**</b>	\$20 total	Lowe's Item# 92118	
4-Bttrfly	(2) 12-18" wide Terracotta Clay Plant Saucer (to create puddling stations) @~\$14.48 ea	\$30 total	Lowe's Item# 94459	





## OC Project Plan: Example Butterfly Garden Materials List & Budget

### ❖ Materials & Supplies with Estimated Budget (cont.)

4- Bttrfly	(1) .5 CF/50 Lb Bag of American Countryside All-purpose Sand (for puddling stations) @~\$5.18 ea	\$5	Lowe's Item# 104898	
4- Bttrfly	(1) Black Steel Garden Trellis (for passionflower vines) @~\$16.48 ea	\$15	Lowe's Item# 397037	
4- Bttrfly	(6-10) Plant ID Signs (one for each plant species) @~\$6 ea	\$35 - \$60 total	<a href="https://www.alabamawildlife.org/oc-dig-into-plants/">https://www.alabamawildlife.org/oc-dig-into-plants/</a> for details	
4- Bttrfly	(6-10) 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 <a href="https://mcgbiomarkers.com/shop/">https://mcgbiomarkers.com/shop/</a>	
4- Bttrfly	(1) 6 ft. U-Post for Fence (for educational sign) @~\$10.69 ea	\$10	Lowe's Item# 493054	
4- Bttrfly	Educational Sign (for the life cycle of butterflies)	\$75	Ask OC Consultant about <a href="https://www.alabamawildlife.org/oc-signs/">https://www.alabamawildlife.org/oc-signs/</a>	
4- Bttrfly	(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	
4- Bttrfly	(2) Hillman 1/4-in x 20 Zinc-Plated Steel Hex Nut @~\$0.10 ea		Lowes Item# 63301	
4- Bttrfly	(2) Hillman 1/4-in Zinc-Plated Standard Flat Washer @~\$0.15 ea		Lowe's Item# 63306	
<b>Total Estimated Cost: \$990-\$1,025</b>				

### ❖ Butterfly Habitat Plant Suggestions:

- ❑ These species are most commonly used in a butterfly garden. Customized plant identification signs with unique scannable QR Codes linked to webpages on AWF's website are available for these plant species. 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.

Nectar Plants	Nectar Plants	Nectar Plants	Host Plants for Caterpillars
Bee Balm	Indian Blanket	Narrowleaf Sunflower	Blue False Indigo
Black-eyed Susan	Joe-pye Weed	Purple Coneflower	Bronze Fennel
Cardinal Flower	Lanceleaf Tickseed	Red Sage	Butterfly Milkweed
Dense Blazing Star	Lavender	Rose Vervain	Common Yarrow
Foxglove Beardtongue	Miss Huff Lantana	Stokes Aster	Passionflower

- ❑ Visit the Alabama Butterfly Atlas website at <http://alabama.butterflyatlas.usf.edu/> AND See the list below for more plant species suitable for the butterfly garden.





## OC Project Plan: Example Butterfly Garden Materials List & Budget

### ❖ Butterfly Habitat Plant Suggestions (cont.):

<b>Host Plants and Nectar Plants for Common Alabama Butterflies</b>		
<b>Butterfly Species</b>	<b>Host Plant</b>	<b>Nectar Plant</b>
<i><u>Swallowtails</u></i>		
Pipevine Swallowtail	Pipevine	blueberry, blackberry, butterfly weed, butterfly bush, lilac, red bud, verbena
Black Swallowtail	parsley, dill, fennel, Queen Anne's Lace, celery, carrots	red clover, butterfly weed, thistle
Spicebush Swallowtail	spicebush	blueberry, blackberry, butterfly weed, butterfly bush, lilac, red bud, verbena
Giant Swallowtail	trees and shrubs of the citrus family, hop tree, prickly ash, rue	lantana, azalea, bougainvillea, goldenrod, butterfly bush, dianthus
Eastern Tiger Swallowtail	sassafras, wild cherry, sweet bay, tulip tree, birch, ash, cottonwood, willow	wild cherry, butterfly bush, lilac, phlox, dianthus
<i><u>Brush-footed Butterflies</u></i>		
Monarch	butterfly weed and other milkweeds	nectar from all milkweeds, lilac, clover, lantana, thistle, goldenrods, blazing stars, coreopsis, butterfly bush, and mints
Painted Lady	thistle, white yarrow, daisy, hollyhock, mallow	aster, cosmos, blazing stars, coreopsis, joe-pye weed, red clover, butterfly bush, zinnia, privet, butterfly weed
Viceroy	willows, poplars, cottonwoods, apple	aster, goldenrod, joe-pye weed, thistle, butterfly weed
Gulf Fritillary	passionflower vine	butterfly weed, black-eyed susan, thistle, verbena, vetch, joe-pye weed, passionflower vine, purple coneflower
Red Admiral	nettle	prefers tree sap and fermenting fruit, but will also nectar at daisy, aster, goldenrod, butterfly bush, red clover, gaillardia
<i><u>Whites and Sulphurs</u></i>		
Cabbage White	cabbage, broccoli	mustards, clover, asters, mints
Clouded Sulphur	alphanpha, clover	flower nectar of many plants including butterfly bush, cosmos and gaillardia
<i><u>Gossamer-wing Butterflies</u></i>		
Red-banded Hairstreak	wax myrtle, sumac, oak	yarrow, coreopsis, butterfly weed
Summer Azure	dogwood	most nectar producing flowers





# OC Project Plan: Example Butterfly Garden Materials List & Budget

Host Plants and Nectar Plants for Common Alabama Butterflies (Cont.)		
Butterfly Species	Host Plant	Nectar Plant
<i>Skippers</i>		
Common Checkered Skipper	globe mallows, mallow, hollyhock	aster, red clover, dianthus
Horace's Duskywing	red oak, willow oak, water oak, white oak	goldenrod, peppermint

