

# Zilker Botanical Garden Conservancy

## 3<sup>rd</sup>-5<sup>th</sup> Grade Docent Guide

### Entire Garden:

- **Plant Adaptations to the Environment:** Let the students know that all plants have adaptations to the environment. As we walk through the garden, we will take time to identify adaptations. Identify the plant and ask what adaptations they notice. Below are a few textbook examples of plant adaptations, there are many more:
  - Succulent Plants: *Water-Storing cells (shrink and swell to maintain water)*
  - Cacti: *Spines (modified leaves that evolved to reduce leaf area, reduce water loss, and deter herbivory)*
  - Riparian Plants: *Aerenchyma (specialized tissue for moving air down to the roots)*
  - Oxalis: *Photonasty (movement of leaflets to alter the amount of solar radiation impinging on the leaf surface)*
  - Purple Heart Tradescantia: *Leaf Waxy (reduces transpiration)*

TEKS Science.3.10.A; Science.4.10.A; Science.5.10.A

### Japanese Garden:

- **The History of the Taniguchi Japanese Garden:** Share the Life of Isamu Taniguchi from internment camp to building the Japanese Garden as a gift to the city of Austin symbolizing peace. *SocialStudies.3.1.A; SocialStudies.4.5.A; SocialStudies.5.5.A*

### Butterfly Garden:

- **Habitat:** Investigating what makes a location for plant and animals suitable to live. The butterfly garden has several features that make it a good habitat for butterflies. What are some of these features and why? (Expect students to say leaves to lay eggs on and eat, flowers to drink, water to drink, and shelter. Ask if they were a butterfly where in the butterfly garden would they go? Identify host plants like *Aristolochia* and *Asclepias*. *TEKS Science.3.9.A; Science.4.9.A; Science.5.9.A*
- **Food Webs:** From Sun to plant to bug to bird, understanding how energy is transferred. Use the Food Web activity with cards & yarn to demonstrate the interconnectedness of organisms in the environment. Students should be able to recognize the predator-prey relationships. How many connections did they make? Could they make more? Is anything missing in this food web? What could be added? *TEKS Science.3.9.B; Science.4.9.B; Science.5.9.B*