

TOPIC	Butterfly Survey Field Trip	TIME ESTIMATE	60 minutes
--------------	------------------------------------	----------------------	------------

OBJECTIVES	
<ul style="list-style-type: none"> • <i>Students will be able to conduct a survey to determine the diversity of the butterfly community at the refuge</i> 	

MATERIALS & RESOURCES	
<ul style="list-style-type: none"> • <i>Clipboard with copies of the field reporting form, location information (maps, safety concerns, etc.) and the Butterfly Brigade Field Guide (PDF)</i> • <i>Binoculars for each student team</i> • <i>Digital cameras for each student team (optional)</i> • <i>Insect Nets (optional)</i> <p><i>NOTE: Some locations will not allow netting of butterflies. Be sure to ask permission before doing any netting or collecting for identification purposes. Any specimens that are captured during the survey should be released within a short time.</i></p>	

LESSON DESCRIPTION & ACTIVITIES		
Steps	No. of Minutes	ACTIVITIES
1	10	<ul style="list-style-type: none"> • Pass out the materials for each group (clipboards, maps, field guides) and review the survey areas on the map • Assign chaperones for each group
2	40	<ul style="list-style-type: none"> • Allow time for students to report to their survey areas • Students should spend at least 30 minutes recording the butterflies they see on their field data collection form
3	10	<ul style="list-style-type: none"> • Discuss the results and questions students may have

Safety Concerns:

- Students should wear appropriate clothing (long pants) and shoes. No open toe or open heel shoes allowed.
- Students should be aware of poisonous plants and/or animals they might encounter and know what to do in case anyone comes in contact with them.
- A first aid kit should be available in case of an accident. If anyone is allergic to bee stings, be sure to take a kit with you.
- Students may want to bring water bottles with them.
- Review the survey location and discuss the rules of the refuge (stay on trails; take nothing, leave nothing; show respect for other visitors.)
- You may want chaperones to have cell phones in case you need to contact them or they need help for any reason.

Teacher Notes:

To encourage all students to participate in the butterfly survey, you may want to assign specific roles for each team member. Possible roles might include:

- Main Identifiers (1-2 students) - Responsible for initial identification of observed butterflies
- Support Identifiers (1-2 students) – Responsible for assisting the main identifiers in identifying an unknown species or identifying a butterfly that was missed by the main identifiers
- Data Recorders (1-2 students) – Responsible for recording all observed butterflies
- Map Manager (1 student) – Responsible for keeping the team in the correct survey area
- Photographer (1 student) – Responsible for taking photographs of the survey area and/or observed butterflies