

## Research-Based Recommendations for Teachers Leading Field Trips\*

Challenge	Recommendations
Chaos/Over-stimulation	<ul style="list-style-type: none"> <li>• Use pre-visit lessons specifically related to the (museum) topics.<sup>1</sup></li> <li>• Plan trips that introduce moderate novelty; use pre-trip orientation to reduce the novelty of new settings.<sup>2, 3</sup></li> <li>• Prepare for novelty: cognitively, geographically, psychologically.<sup>4</sup></li> </ul>
Limited Time	<ul style="list-style-type: none"> <li>• Students show better retention when the content is linked to the curriculum<sup>5, 6, 7</sup></li> <li>• Use the museum's website to plan logistics and extend lessons in the classroom<sup>8</sup></li> <li>• Incorporate science standards in lesson planning<sup>9</sup></li> <li>• Limit the number of exhibits students visit to improve learning<sup>10</sup></li> <li>• Allow time for small group exploration<sup>11</sup></li> </ul>
Teaching Tools (such as tasks, worksheets, or prompts)	<ul style="list-style-type: none"> <li>• Consider students' input, interests, and abilities in planning your trip<sup>12, 13</sup></li> <li>• Give students choice in exploring<sup>14</sup></li> <li>• Some less structured time can be good<sup>15</sup></li> <li>• If you use worksheets, emphasize concepts rather than a broad survey of the content, and preference questions that prompt students to interact with exhibits and allow some degree of choice in response<sup>16, 17</sup></li> <li>• Encourage social interactions, (even) while using worksheets<sup>18, 19</sup></li> </ul>
Surprises	<ul style="list-style-type: none"> <li>• Determine the trip's purpose first, then plan the setting<sup>20</sup></li> <li>• If you choose a museum destination, consider how it supports your agenda<sup>21</sup></li> <li>• Visit the field trip site ahead of time and coordinate with staff on safety, logistics, expectations and learning<sup>22, 23, 24</sup></li> </ul>
Chaperones	<ul style="list-style-type: none"> <li>• Recognize and support multiple roles of chaperones and encourage chaperones to use new approaches to facilitating learning.<sup>25</sup></li> <li>• Encourage chaperones to promote conversations among students (because most of students' talk in a museum is learning talk<sup>26</sup>), and ask questions that require students to explore exhibits<sup>27</sup></li> <li>• Encourage chaperones to interact with students in a family-like way in small groups<sup>28, 29</sup></li> <li>• Consider providing chaperones with a list of questions and a bag of props they can use to focus students' attention and inquiry<sup>30</sup></li> <li>• Model interest in exhibits<sup>31</sup></li> <li>• Prepare chaperones with an understanding of students' current ideas, thinking, values, and learning needs<sup>32</sup></li> </ul>

\*Adapted from Rebar, B. M. & Enochs, L. G. (In press) Integrating Environmental Education Field Trip Pedagogy Into Science Teacher Preparation. In A. Bodzin, S. Weaver, & B. Klein (Eds.), *The Inclusion of Environmental Education in Science Teacher Education*. Springer Press.

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