

Antarctic Exploration is on the web (www.studyofplace.com) with all its online embellishments.

Online students can:

- use a route map of Shackleton's expedition to navigate to investigations
- study a time-line of Antarctic Explorers
- study maps and aerial views of Antarctica in an online image gallery, individually or in a side-by-side view (Investigation 1, Exploring and Discovering)
- measure seasonal change in sea ice using an online grid (Investigation 2, Exploring and Discovering)
- watch a quick-time movie of seasonal change in sea ice (Investigation 2, Extension Activity)
- use an online solar calculator to obtain data and an online tool to graph the angle of the sun in their home town over a year's time compared to data from Antarctica (Investigation 2, Looking Closer)
- graph cooling and heating curves derived from insulation and reflectivity experiments (Investigation 4, Exploring and Discovering)
- type their answers on line for all record sheets

Online teachers can:

- Access and print all the science content and technology background they need for teaching
- Evaluate student assessments that accompany each investigation with scoring rubrics
- Print all record sheets, readings and assessments from PDF downloads

Just as a reminder, these supplementary materials for middle grades students:

1. Focus on the critical environmental issue of global climate change;
2. Use high-tech satellite images and historical narrative to help students see the relationships between earth's oceans and ice;
3. Use historical narrative as a way to engage different kinds of learners in science;
3. Integrate the power of hands-on investigations with online resources;
4. Provide just-in-time professional development materials to support teaching;
5. Provide embedded assessments, checks for understanding and scoring rubrics to track learning and inform teaching.