RED BUTTE GARDEN
BOTANY BINS

PATTERNS & PARTNERSHIPS: UTAH MOUNTAIN ECOLOGY

Introduction

Welcome, we are so excited to share our passion for botany and the scientific world with you and your students! This module of the Botany Bin program explores the ecosystem found in Utah's mountains. The information is most applicable to the Uinta mountains and Wasatch front, but reflects most of the Rocky Mountains and into the higher elevation mountains of the rest of the state as well. It would be easy to spend a lifetime exploring all the facets of these ecosystems, but we have tried to pick those that are most applicable and relevant. Hopefully the lessons and materials found in this Botany Bin will be a springboard, leading to greater interest and exploration of the incredible ecosystems of Utah's Mountains!

We welcome your feedback, suggestions, and questions! If you have found an error, tweak, or addition to a lesson, please let us know. We like to consider these bins a living work and are happy to have the chance to learn and grow. If you run into questions or issues when using the bin, please don't hesitate to call or email, I love to talk Botany Bins!

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The lessons in this bin were set up to provide a great deal of flexibility in both length and depth. Plain text in black contains the middle-of-the-road option, while text in red contains time-saving options, and text in purple contains options to dive deeper into the subject matter. Each lesson includes extensions to provide a deeper look at the topic, or the science, or scientists associated with that topic.

The USB in the Botany Bin includes pdf versions of all of the materials found in this binder along with additional background, extensions and activities. Blacklines can be found in the addendum folder, the USB, and this binder.

While all of the standards covered in this bin may not be based on the new SEEd standards, we have designed the lessons to be phenomenon-based experience, and included 3D science components. We suggest that students explore the items themselves before vocabulary is introduced. Allowing the students a moment to explore the materials on their own, before discussing as a group, has also proven to promote creative thinking and is suggested in the lesson plan. Background on SEEd and phenomenon-based learning are available on the USB.

As is true in scientific exploration in the professional world, the scientific skills of Engaging in Argument from Evidence and Obtaining, Evaluating, and Communicating Information is crucial to accurate and useful scientific progress. To that end, most lessons include the opportunity for students to both communicate their findings and reasonings, and to engage their peers when they find their logic faulty. We've found that assigning roles within groups helps to make this process more effective and efficient. The group roles mentioned in the lesson plans are expanded on in the Group Discussion Folder on the USB.

As students explore this Botany Bin and the Utah Mountain Ecosystem, we hope that some are inspired to pursue a future in botany, forest, or ecosystem science. To that end we have included a pack of The Natural Inquirer's Scientist & Engineer Trading Cards! We highly encourage letting your students peruse these cards, either independently or with the guidance of the wheel found in the "Sci Card" tab in the addendum folder.

Thank you for joining the Botany Bin adventure, we hope you and your students have a wonderful experience!