Lesson Title	Ecology of a different kind
Length of Lesson	50 minutes
Created By	Lucas Pounders
Subject	Science
Grade Level	6^{th} - 8^{th}
State Standards	Eighth Grade - 4a
DOK Level	1
DOK Application	Who, What , When , Where, Why, Connect
National Standards	5-8 Science as Inquiry
Graduate Research Element	Soil saturation, Ecology, Habitats, Climatology

Student Learning Goal:
This lesson is designed to help students to understand the significance of Temperature and Volume as it pertains to Charles Law. This will be done through the use of a PowerPoint presentation on Australian ecology, lecture with discussion and handouts.

State Standards

1. Draw conclusions from scientific investigations including controlled experiments.

a. Design, conduct, and analyze conclusions from an investigation that includes using experimental controls.

d. Analyze evidence that is used to form explanations and draw conclusions.

e. Develop a logical argument defending conclusions of an experimental method.

h. Analyze different ideas and recognize the skepticism of others as part of the scientific process in considering alternative conclusions.

National Standards
LEVELS 5-8

Abilities necessary to do scientific inquiry

Understanding about scientific inquiry

Materials Needed (supplies, hand-outs, resources):
PowerPoint presentation on Australian Ecology
Handouts for students

Lesson Performance Task/Assessment:
Start the lesson by asking the students what comes to mind when they think of the word ecology. Follow their responses by asking what may be some differences between the ecology of where they live and a town a few miles away. Next ask the students what may be the differences between the ecology of the southern United States and Australia. Following up on the students answers, use the power point presentation to introduce the Australian state of Tasmania. The idea is to show that ecology may change very little

over a small area and change a lot over a large area but this is not the case in the state of Tasmania. There are very few places in the world that have such a vast array of ecological changes in a 140 mile radius. This island state has over eleven different ecological regions and many different types of animals and fish, some of which are indigenous to this area.

Lesson Relevance to Performance Task and Students:
At a later date the students will have a more in depth study in ecology and will be required to reference this lesson to answer questions.

Anticipatory Set/Capture Interest:
In order to capture the interest of the students, the PowerPoint slides incorporate many pictures of examples that the students will hopefully find interesting. While showing these picture examples the teacher should also elaborate on them telling facts about the examples.

Guided Practice:
After the PowerPoint presentation there will be a guided discussion about the things that were taught from the PowerPoint as well as the differences between their own surrounding areas and other areas that they have experienced.

Independent Practice:
Students will fill out a handout about the PowerPoint slides that were presented that is to later be discussed.

Remediation and/or Enrichment:
Follow student IEP.

Check(s) for Understanding:
The checks for understanding will come from discussion and answered handouts.

Closure:
Closure comes in the form of class discussion where the answer to questions asked for understanding can be left somewhat open ended or have a correct and definite answer. Also the students are to turn in their Handouts on the Australian Ecology.

Possible Alternate Subject Integrations:
General Science, Botany, Ecology

Teacher Notes:
Always be sure to know the material that you are presenting and make a dry run through your lectures before trying to attempt them in class. Do not be afraid to substitute and improvise as needed.