

My Weather Portfolio Teacher Directions

The weather standards, based on the Georgia Performance Standards, span over the entire school year. Basic information, such as types of weather and types of weather tools, can be taught separately. However, weather as a whole is taught in increments corresponding to the changing seasons.

The “My Weather Portfolio” is designed to address all of the standards for Grade 1 Weather. The directions will discuss what each piece is for, and when to use it. It is suggested that teachers keep a folder for each student, so at the end, the pieces can be joined into a comprehensive portfolio. This portfolio should illustrate the student’s enduring understanding of weather and seasons.

Instructions by page number –

Page 1 – Title page for portfolio. This item will not be needed until it is time to compile all of the documentation.

Page 2 – Student’s overview of weather. This page can be used at the end to gain an understanding of the student’s feelings towards weather.

Pages 3 – 4 – To be used when teaching types of weather. Students may either draw pictures of the types of weather, or they may cut and paste pictures (Page A)

Pages 5-6 – To be used when teaching the basic weather tools – rain gauge, thermometer, and wind vane. Students may either draw pictures of the types of weather, or they may cut and paste pictures (Page B)

Page 7 – Starts off the seasonal weather segment. Students are to fill in the season that they are starting the book in, which months generally fall in the season, and an area to discuss what they like and dislike about the season. Great way to introduce the season.

Page 8 – Each class should “adopt” a tree to monitor throughout the year. A digital picture can be taken and pasted to the paper. Students are to discuss the color and condition of the tree’s leaves below.

Pages 9 -10 – This is a weather log for the students to document the weather at the school. It is suggested that this activity should be done the same time of day to achieve a fair representation. (In order to do this activity, the class needs access to a rain gauge, a thermometer, and a wind vane. If these are not

available, information can always be accessed from the Internet at www.georgiaweather.net.)

Pages 11-12 – At the end of a season, students should compile the number of sunny days and the number of rainy days per month. They are to graph this information into the chart. Using this information, they should be able to interpret the graph and answer the questions on page 12.

Page 13 – Students are to brainstorm the types of clothes that they were during the particular season. They are to draw and color clothing items on the human figure and explain why they are wearing the particular items.

Page 14 – As part of the unit, students are to measure the shadow of a certain object. They are to compare the lengths of the shadow in relationship to the season. The box is available for a photo or picture of the item with its shadow.

Pages 7 – 17 are designed for ONE season, so a total of four (4) sets per child will be needed.

At the end of the school year, students are to compile all of their information. These papers should be placed in order.

Finished portfolios may be stapled with a construction paper cover, or teachers may opt to use a binding machine to put the completed project together.

Resources for Graphics

<http://chiotsrun.com>

<http://www.abbythelibrarian.com>

www.wclipart.com

Georgia Performance Standards

S1CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

a. Raise questions about the world around them and be willing to seek answers to some of the questions by making careful observations and measurements and trying to figure things out.

S1CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Use whole numbers in ordering, counting, identifying, measuring, and describing things and experiences.

b. Readily give the sums and differences of single-digit numbers in ordinary, practical contexts and judge the reasonableness of the answer.

c. Give rough estimates of numerical answers to problems before doing them formally.

S1CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities.

a. Use ordinary hand tools and instruments to construct, measure, and look at objects.

c. Identify and practice accepted safety procedures in manipulating science materials and equipment.

S1CS5. Students will communicate scientific ideas and activities clearly.

a. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.

b. Draw pictures (grade level appropriate) that correctly portray features of the thing being described.

c. Use simple pictographs and bar graphs to communicate data.

The Nature of Science

S1CS6. Students will be familiar with the character of scientific knowledge and how it is achieved.

Students will recognize that:

a. When a science investigation is done the way it was done before, we expect to get a similar result.

b. Science involves collecting data and testing hypotheses

c. Scientists often repeat experiments multiple times, and subject their ideas to criticism by other scientists who may disagree with them and do further tests.

d. All different kinds of people can be and are scientists.

S1CS7. Students will understand important features of the process of scientific inquiry.

Students will apply the following to inquiry learning practices:

- a. Scientists use a common language with precise definitions of terms to make it easier to communicate their observations to each other.
- b. In doing science, it is often helpful to work as a team. All team members should reach individual conclusions and share their understandings with other members of the team in order to develop a consensus.
- c. Tools such as thermometers, rulers and balances often give more information about things than can be obtained by just observing things without help.

S1E1. Students will observe, measure, and communicate weather data to see patterns in weather and climate.

- a. Identify different types of weather and the characteristics of each type.
- b. Investigate weather by observing, measuring with simple weather instruments (thermometer, wind vane, rain gauge), and recording weather data (temperature, precipitation, sky conditions, and weather events) in a periodic journal or on a calendar seasonally.
- c. Correlate weather data (temperature, precipitation, sky conditions, and weather events) to seasonal changes.