



WEATHER & CLIMATE

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Introduction

If you are new to the idea of using a Science Interactive Notebook in your classroom, stop by my Nitty Gritty Science shop and download my Intro to Science Interactive Notebooks tutorial for FREE! In there you will find tips on how to begin with your students, what materials to have on hand and, most importantly, how it will enhance your students' learning through reflection and creativity.

Focused Lessons with Differentiated Instruction

The lessons shared on the following pages cover National Science Standards and meet students' needs. I have given you the notes that I would give my students (Right Side - Input Side of Notebook) so you can understand what I'm having the students focus on when working on their creative assignments (Left Side - Output Side of Notebook). Each lesson focuses on a Question of the Day (QOD) represented in red in the top margin of each "Input" page with the student giving an answer in red on the "Output" page.

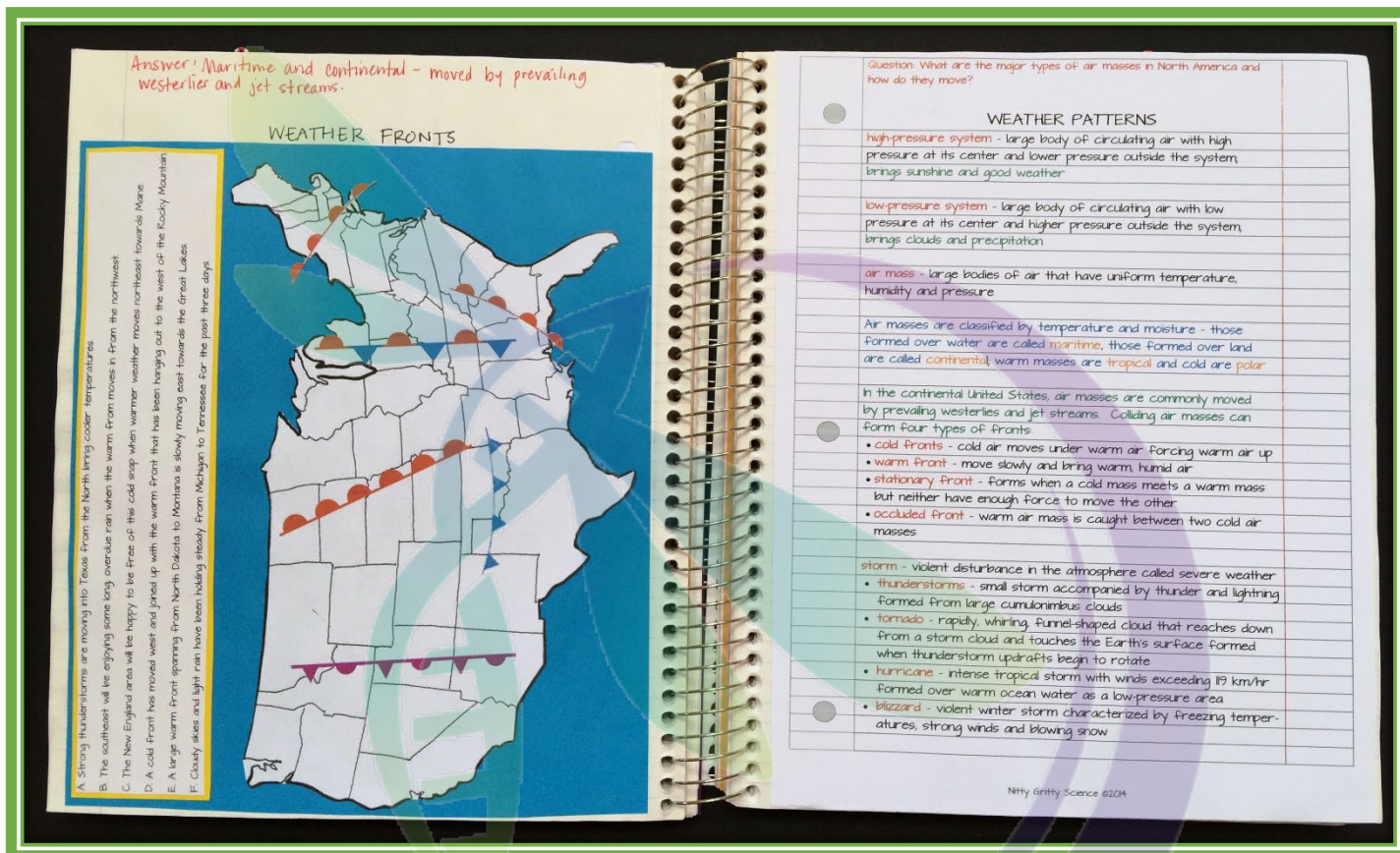
Left Side - Output

Instructions for each Output Side are included. This includes cut-outs, foldables or master copies where applicable. You may find that students work slowly at first, but once groups are organized and students know what is expected from them, not only will you see more energy focused on the final product, but also you will be shocked at the level of creativity certain students have in certain areas.

Mini-Assessments

Mini quizzes will be given for each section so you may monitor student's level of understanding. For reproduction purposes, there are two quizzes to a page so you can cut them in half and save on some paper 😊

Section 1: Weather Patterns



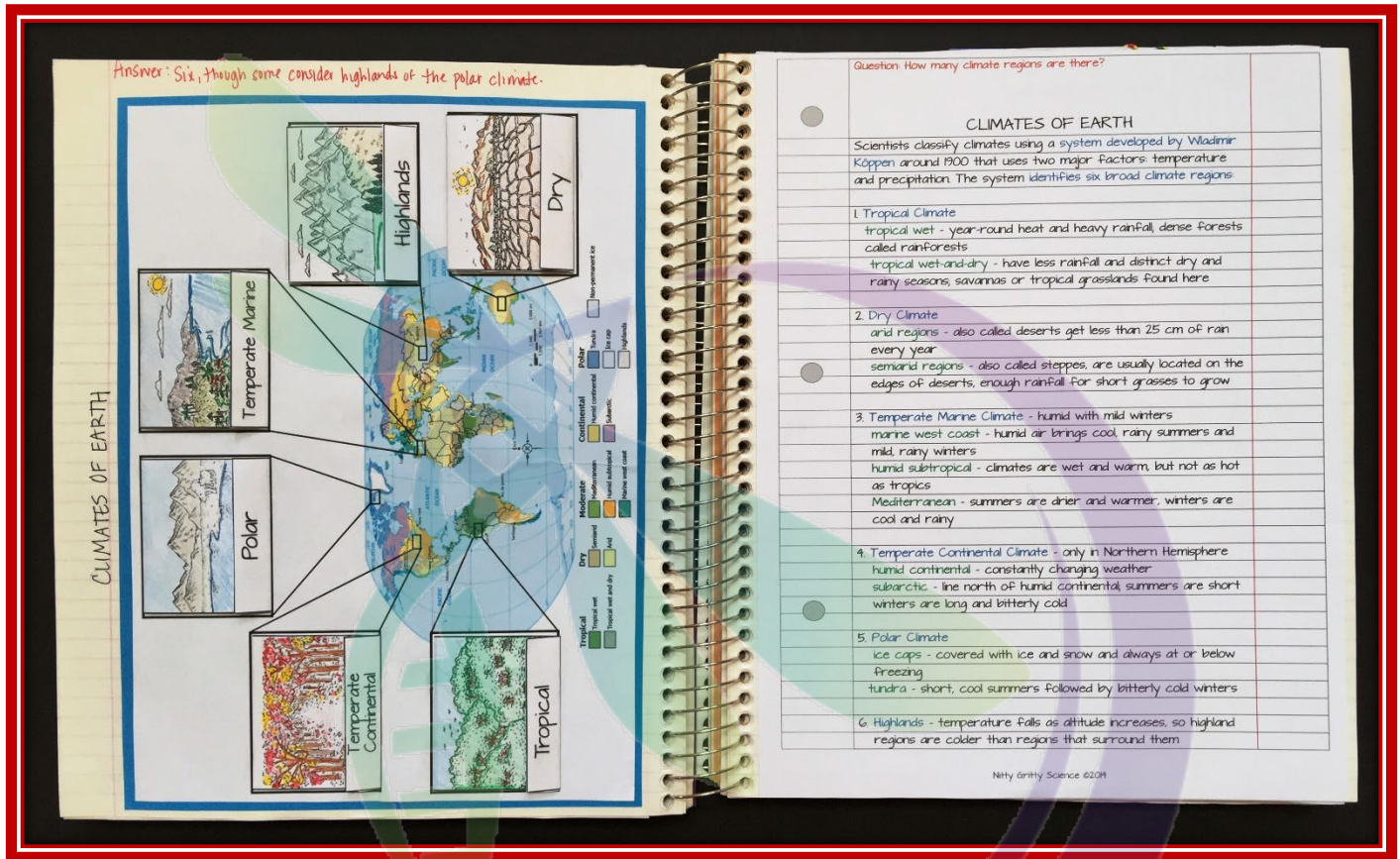
Instructions:

Students will learn about different types of weather fronts and will need to apply their knowledge as a weather forecaster. After reading a weather forecast, students will need to complete a map showing the proper fronts moving in the proper direction across North America.

Weather Fronts includes cut-outs of different fronts, a student printable, and a teacher answer key along with a mini-quiz.

MULTIPLE LEARNING STYLES ADDRESSED WITH ORIGINAL ACTIVITIES – NO REPEATS!

Section 3: Climates of Earth



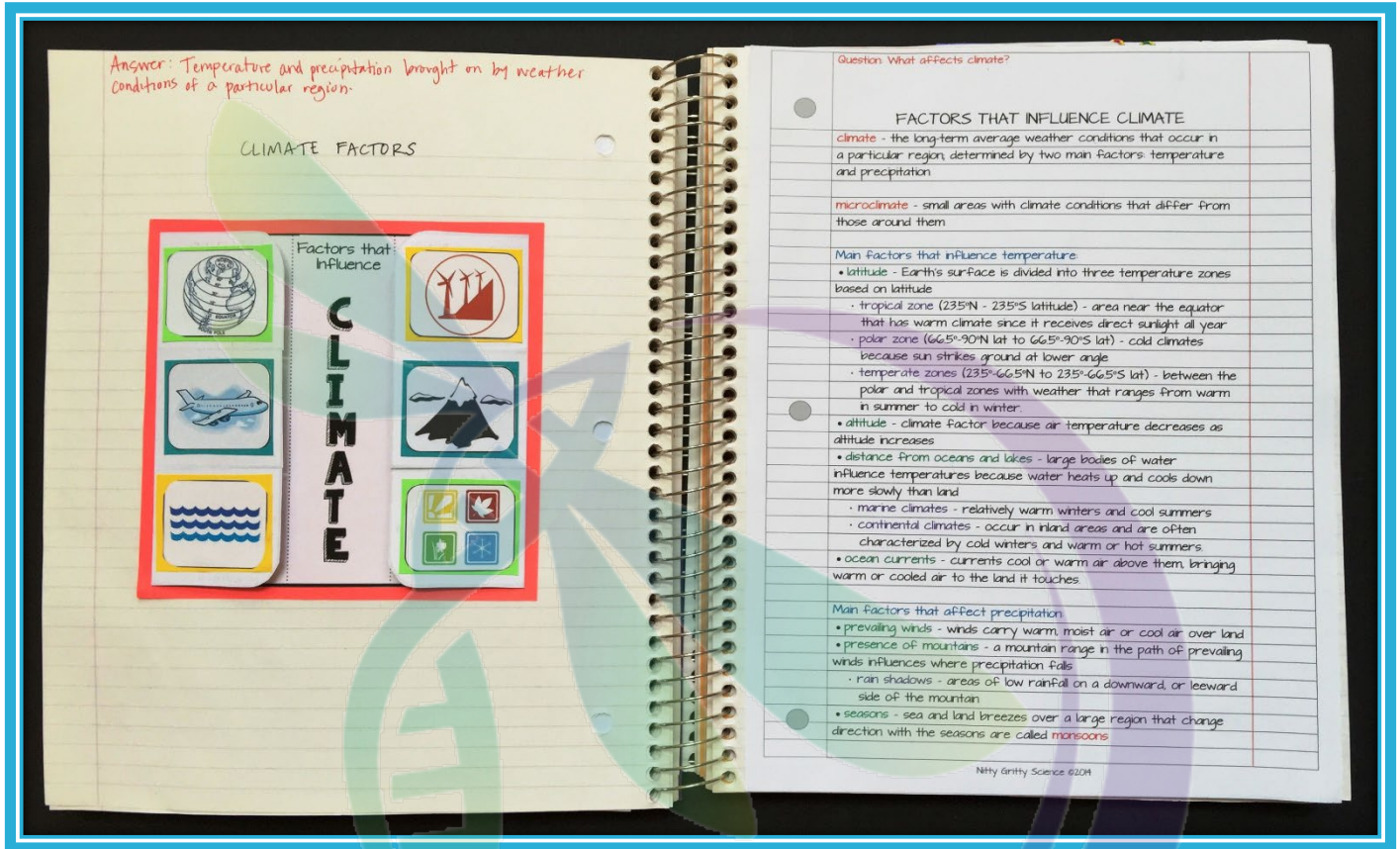
Instructions:

Students will be able to identify various regions around the globe where the major climates of Earth can be found. Once located, students will place the climate matchbook with a picture and a written description of each climate.



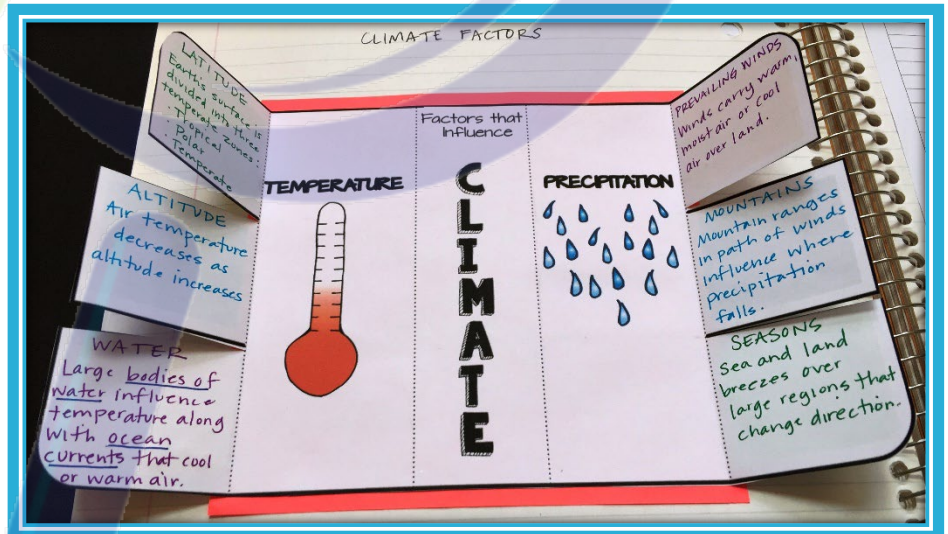
Climates of Earth features a page of black and white diagrams that students can color, along with a world map (both color and black and white), a teacher answer key, and a mini-quiz.

Section 4: Factors That Influence Climate



Instructions:

The Factors that Influence Climate activity will first have students identify which climate factors influence temperature and which influence precipitation. Once identified, students will need to label and describe each factor on the inside of each shutter fold. Great activity to use for self-review.



The printable for this activity is also available in color or in black and white, with a teacher answer key and a mini-quiz.

Name _____ Date _____

Quiz: Climate Cycles & Recent Climate Change

Short Answer

1. List three different ways scientists collect evidence to gain information on past climates.

2. Give an example of a short-term climate cycle and explain your answer.

3. Describe two ways that humans have impacted climate change.

----- **MINI QUIZZES INCLUDED FOR EACH SECTION** -----

Name _____ Date _____

Quiz: Climate Cycles & Recent Climate Change

Short Answer

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2. Give an example of a short-term climate cycle and explain your answer.

3. Describe two ways that humans have impacted climate change.



WEATHER & CLIMATE

INCLUDES STUDENT SECTION COVERS

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Question: What can be learned from the information on a weather map?

WEATHER FORECASTS

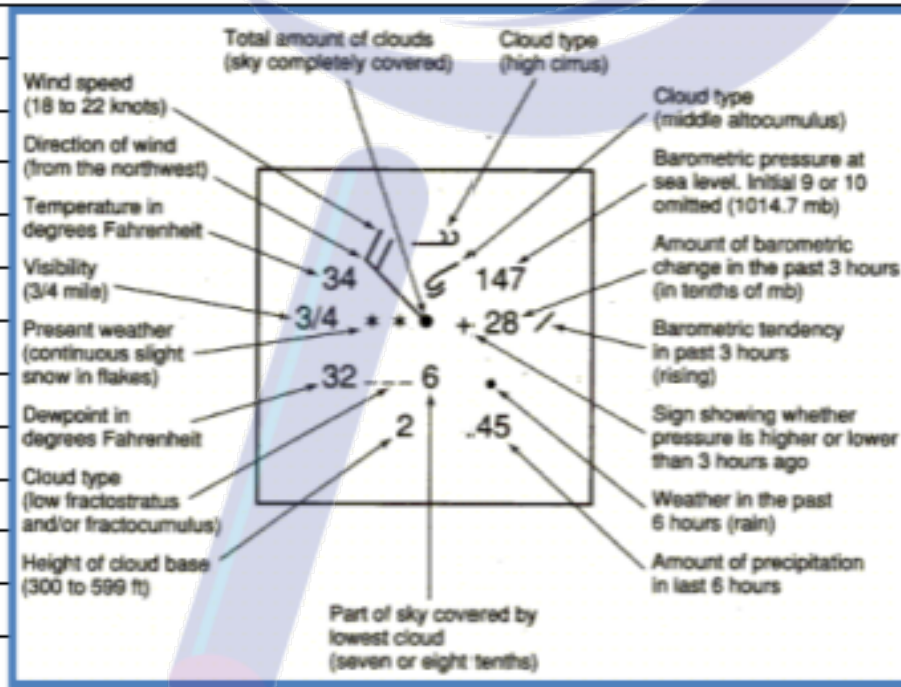
meteorologists - scientists who study the causes of weather and try to predict it; use maps, charts and computers to analyze data to prepare weather forecasts

surface report - description of a set of weather measurements made on Earth's surface

upper-air report - describes wind, temperatures, and humidity conditions above Earth's surface

Doppler radar - specialized type of radar that can detect precipitation as well as the movement of small particles, which can be used to approximate wind speed

station models - diagram that displays data from many different weather measurements for a particular location:



isobars - lines joining places on a map that have the same air pressure

isotherms - lines joining places that have the same temperature



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