

Weather

Teacher and Student Resources

Goal 3: The learner will conduct investigations and use appropriate technology to build an understanding of weather and climate.

- 3.01 Investigate the water cycle including the processes of: evaporation, condensation, precipitation, and run-off
- 3.01 Discuss and determine how the following are affected by predictable patterns of weather: temperature, wind direction and speed, precipitation, cloud cover, and air pressure.
- 3.03 Describe and analyze the formation of various types of clouds and discuss their relation to weather systems.
- 3.04 Explain how global atmospheric movement patterns affect local weather.
- 3.5 Compile and use weather data to establish a climate record and reveal any trends.
- 3.06 Discuss and determine the influence of geography on weather and climate: Mountains, Sea Breezes, and water bodies.

Weather Webquest: <http://davidson.k12.nc.us/webquests/weather/weather.htm>
(Water cycle, cloud formation, local weather, weather around the USA, and climate)

NC EOG Release Science Test:
<http://www.ncpublicschools.org/docs/accountability/testing/releasedforms/grade5sciencereleased.pdf>

NC Kid Science Experiments and Resources: <http://www.nckidscience.com/Resources/?grade=5&goal=3>

NC EOG Science Question Stems:
<http://faculty.rcoe.appstate.edu/goodmanjm/asuscienceed/assessment/EOGgrade5.htm>

Weather study guide: <http://www.rockingham.k12.va.us/resources/elementary/files/weather.html>

20 Question Weather Quiz/Review:
<http://ouronlineschools.org/Schools/NC/Demoschool/5thGrade/Science/5thGradeClimate.htm>

COST Resource NC Science Coach Study Guide: <http://www.teacherspayteachers.com/Product/NC-5th-Grade-Science-Coach-Study-Guide>

Notes and vocabulary on various NC 5th grade science topics:
http://camons.bje.abss.k12.nc.us/modules/locker/files/group_files.phtml?parent=7055544&gid=112975&sessionid=c0c80b35d22be2ca6fe11f2154423f14

Collected weather data from NC and ways to represent it:
<http://sites.google.com/site/mrsmcavinneysscience/5th-Grade-Weather-Page>

EOG Weather Vocabulary on Quizlet: <http://quizlet.com/2203472/science-eog-5th-grade-weather-concepts-flash-cards/>
<http://quizlet.com/2232483/nc-science-eog-review-flash-cards/>

Weather

Teacher and Student Resources

Fifth grade weather science unit: http://www.harlan.k12.ia.us/mrsc/welcome_fifth_grade_science_unit.htm

Weather Unit with lots of activities: <http://www.sedl.org/scimath/pasopartners/pdfs/weather.pdf>

~Links below were compiled on the:

http://camons.bje.abss.k12.nc.us/modules/groups/integrated_home.phtml?gid=112975&sessionid=c0c80b35d22be2ca6fe11f2154423f14 website~

Air Masses:

<http://www.kidsgeo.com/geography-for-kids/0122-air-masses.php>

Air Masses and Fronts: <http://daphne.palomar.edu/jthorngren/airmass.htm>

mT= Maritime Tropical

mP= Maritime Polar

cP = Continental Polar

cT = Continental Tropical

A = Arctic

H = Highland

Desert Climates: http://www.ace.mmu.ac.uk/eae/climate/Older/Desert_Climate.html

Mountain Climates: <http://www.woodlands-junior.kent.sch.uk/Homework/mountains/climate.htm>

http://www.travel-bulgaria.com/old/content/mountain_climate.shtml

Polar Climates: http://www.ace.mmu.ac.uk/eae/climate/Older/Polar_Climate.html

<http://www.mapsofworld.com/referrals/weather/climate/polar-climate.html>

Temperate climate: <http://www.kbears.com/climates/printmild.html>

http://www.enviropedia.org.uk/Climate/Temperate_Climate.php

World Climate Zones: <http://www.geography.learnontheinternet.co.uk/topics/climatezones.html>

Climate change: http://www.ecn.ac.uk/Education/factors_affecting_climate.htm

http://www.mvla.net/TEACHERS/TERIF/EARTH_20SCIENCE/Pages/FactorsthatAffectClimateTutorial.aspx

Weather vs. Climate: <http://www.weatherwizkids.com/weather-climate.htm>

What is climate: <http://www.mcwdn.org/MAPS&GLOBES/Climate.html>

Clouds: <http://www.weatherwizkids.com/weather-clouds.htm>

Predicting weather: http://www.ussartf.org/predicting_weather.htm

Weather game: <http://www.cotf.edu/ete/modules/k4/online/Wonline1.html>

Anemometer: <http://science.howstuffworks.com/nature/climate-weather/meteorological-instruments/anemometer-info.htm>

<http://www.rcn27.dial.pipex.com/cloudsrus/measurewind.html>

Barometer: <http://weather.about.com/od/weatherinstruments/a/barometers.htm>

History of weather instruments: <http://inventors.about.com/od/wstartinventions/a/Weather.htm>

~The following links were compiled on:

http://cobb.bje.abss.k12.nc.us/modules/groups/integrated_home.phtml?gid=92500&sessionid=c0c80b35d22be2ca6fe11f2154423f14&t=41c39ca77flcca5096cc667c83037a74 website~

Climate zones: <http://www.cgrove417.org/fry/Science/Climate/climatezones.html#anchor253755>

Weather

Teacher and Student Resources

Climate zone changes: <http://www.arb.ca.gov/cc/kids/kids.htm>
Climate zone videos: http://www.teachersdomain.org/browse/?fq_hierarchy=k12.sci.ess.watcyc.climate
Animated Water Cycle: <http://earthguide.ucsd.edu/earthguide/diagrams/watercycle/>
Clouds: <http://www.kidskonnct.com/subject-index/15-science/67-clouds.html>
Water cycle: <http://ga.water.usgs.gov/edu/watercycle.html>
Water cycle: <http://www.njawwa.org/kidsweb/watercycle/watercycle.htm>
Water cycle: <http://www.coe.ilstu.edu/scienceed/basolo/water/water.htm>
Water cycle explained: http://www-k12.atmos.washington.edu/k12/pilot/water_cycle/grabber2.html
Water cycle for kids: http://teachers.eusd.k12.ca.us/kchadwick/water_cycle_for_kids.htm
Water cycle movie: http://epa.gov/climatechange/kids/water_cycle_version2.html



How to make your own weather tools: <http://www.miamisci.org/hurricane/weathertools.html>
Make a barometer: http://starryskies.com/try_this/baro1.html
Make your own weather station: <http://www.fi.edu/weather/todo/todo.html>
Make your own Anemometer: <http://www.energyquest.ca.gov/projects/anemometer.html>

Scholastic Weather Watch: <http://www.teacher.scholastic.com/activities/wwatch/>
Weather instruments: <http://www.weatherwizkids.com/weather-instruments.htm>

Weather lab: <http://urbanext.illinois.edu/treehouse/index.cfm>
Climatologist's toolbox: <http://whyfiles.org/021climate/>
Ed Head's Weather Files: <http://www.edheads.org/activities/weather/>
Web Weather for Kids: <http://eo.ucar.edu/webweather/>
Weather links: http://www.illiniweather.com/pages/kids_weather_links.htm
The Weather Channel for Kids: <http://www.theweatherchannelkids.com/>
Weather Wizkids: <http://www.weatherwizkids.com/>
National Online Weather Service, online school for weather: <http://www.srh.weather.gov/jetstream/>
United States Climate Zones: <http://weathereye.kgan.com/cadet/climate/climate.html>
Wild Weather: <http://www.wildwildweather.com/>
Water Sheds of NC: <http://www.eenorthcarolina.org/public/eoaddress/riverbasins/riverbasinmapinteractive.htm>
Weather basics and songs: <http://www.wxduke.com/basics.html>

Discovery Education Videos: (bullets show the clips that match to our essentials)

Elementary Video Adventures: Weather and Climate

<http://player.discoveryeducation.com/index.cfm?guidAssetId=25B0B2A7-D01A-43D3-90BC-BC94FC1258F3>

- Meteorology: the science of predicting weather
- Meteorologists use scientific instruments to measure and predict weather
- How Snowstorms form
- How Thunderstorms form

Weather Smart: Heat, Wind, and Pressure

<http://player.discoveryeducation.com/index.cfm?guidAssetId=b2b07925-15a4-4728-875d-b4369021cc65>

- Air pressure and wind
- Barometers: high and low air pressure
- Wind: breezes, gusts, and gales

Weather

Teacher and Student Resources

- How temperature affects the air
- Circulation: how heat, wind, and pressure work together
- Heat, Wind, Pressure review
- Video Quiz- Weather smart: Heat, Wind, and Air Pressure

Investigating Weather:

<http://player.discoveryeducation.com/index.cfm?guidAssetId=31086ffa-b0e6-4177-970d-013827cd674f>

- The water cycle
- Air masses and fronts- how weather and moves from one place to another
- Forecasting Weather

Weather Smart- forecasting weather: <http://player.discoveryeducation.com/index.cfm?guidAssetId=0d0fc375-332d-4elc-977a-14811c78fe0b>

- The importance of weather forecasting
- Thermometers: Measuring temperature
- Anemometers and Wind Vanes
- Compasses-finding direction
- Hygrometers: Measuring humidity
- Barometers: measuring air pressure
- Radar and Rain gauges- locating and measuring precipitation
- How maps, graphs, charts help meteorologists predict the weather
- Forecasting weather
- Weather balloons measuring the weather above the earth
- Using weather instruments to forecast weather
- Weather Smart Video Quiz: Forecasting and weather instruments

The Water Cycle: <http://player.discoveryeducation.com/index.cfm?guidAssetId=4c50138b-a84c-415c-9df8-35a2298a0663>

- Introduction
- Water
- The Sun
- Evaporation
- Condensation
- Precipitation
- Where does water go?
- Conclusion

The importance of water: <http://player.discoveryeducation.com/index.cfm?guidAssetId=ace02892-4f7b-43ad-b613-302bc8a1f6a8>

- Introduction
- Liquid. Solid, Gas
- Water Cycle

Weather

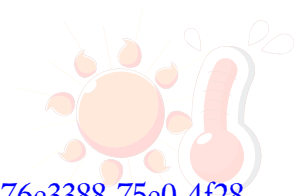
Teacher and Student Resources

- Weather
- Water can change the earth (erosion and weathering connection)

Water Smart: The sun, water cycle, and climate:

<http://player.discoveryeducation.com/index.cfm?guidAssetId=c929d8ee-24cc-421d-b00d-5bf3174850a7>

- The water cycle: evaporation, condensation, precipitation, and run off
- Evaporation, transpiration, and sublimation
- Condensation
- Precipitation
- Runoff
- Video Quiz



Clouds, Weather, and Life: <http://player.discoveryeducation.com/index.cfm?guidAssetId=876e3388-75e0-4f28-8693-5919fa0ed6cf>

- Types of Clouds
- The water cycle
- Song: Clouds are cool

TLC Elementary School: Earth's Ecology

<http://player.discoveryeducation.com/index.cfm?guidAssetId=a05b96df-241a-47fb-b755-40315557a46d>

- Weather Fronts
- Cloud and Forecasting

The Magic School Bus Kicks Up a Storm:

<http://player.discoveryeducation.com/index.cfm?guidAssetId=D8C4EB4A-A32F-41BE-9F25-F94DEB66C46E>

- Recipe for weather
- Air always rises up
- Wind: moving air
- What makes wind?
- Cloud water droplets
- Inside a thunderstorm
- Riding snowflakes
- More facts about storms

Weather Smart: Winter and Snow <http://player.discoveryeducation.com/index.cfm?guidAssetId=5F2FAAAA-80A4-4751-B685-EF1A498E07FA>

Understanding Weather: <http://player.discoveryeducation.com/index.cfm?guidAssetId=5704BB15-2288-4824-B741-12365C9ECB1D>

- Part One: Understanding Weather
 - The impact of weather
 - Meteorology: a brief history
 - A brief history or weather prediction

Weather

Teacher and Student Resources

Easy search for standards:

3.01a Evaporation:

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b458d76-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true

3.01b Condensation:

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b45b7c4-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true

3.01c Precipitation:

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b45e0f0-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true

3.01d Runoff:

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b4609c7-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true

3.02a Temperature:

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b465bb6-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true

3.02b Wind direction and speed:

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b46856e-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true

3.02b Precipitation:

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b46aec2-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true

3.02c Cloud Cover:

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b46db04-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true

3.02d Air Pressure:

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US

Weather

Teacher and Student Resources

[S|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b47049e-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true](http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b47049e-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true)

3.03 Describe and Analyze Clouds and their relations to the weather system

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b472eb0-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true

3.04 Global atmospheric movements patterns and how they affect weather

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b4757fa-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true

3.05 Compile and use weather data to establish climate records and trends

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b478126-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true

3.06a Mountains

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b47d310-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true

3.06b Sea Breezes

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b47fd22-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true

3.06c Water Bodies

http://search.discoveryeducation.com/CurriculumStandards/CurriculumStandardSearchResult.cfm?region_code=US|37&seldocument=Standard_20Course_20of_20Study&selgrade=5&selcopyright=2004&StandardID=5b482676-780e-11d8-b553-f249708594ee&blnSearchStandardsInit=true

BrainPop ©

North Carolina Standard Course of Study > Science (2004)

Grade 5



Evaporation.

- BrainPOP [Snowflakes](#)
- BrainPOP [Water Cycle](#)
- BrainPOP [Oceans](#)
- BrainPOP [Weather](#)

North Carolina Standard Course of Study > Science (2004)

Grade 5

Condensation.

Weather

Teacher and Student Resources

- BrainPOP [Snowflakes](#)
- BrainPOP [Humidity](#)
- BrainPOP [Water Cycle](#)
- BrainPOP [Weather](#)

North Carolina
Grade 5

Standard Course of Study > Science (2004)

⊕ *Precipitation.*

- BrainPOP [Snowflakes](#)
- BrainPOP [Water Cycle](#)
- BrainPOP [Thunderstorms](#)
- BrainPOP [Weather](#)

North Carolina
Grade 5

Standard Course of Study > Science (2004)

⊕ *Run-off.*

- BrainPOP [Water Cycle](#)
- BrainPOP [Snowflakes](#)
- BrainPOP [Water Pollution](#)

North Carolina
Grade 5

Standard Course of Study > Science (2004)

⊕ *Temperature.*

- BrainPOP [Humidity](#)
- BrainPOP [Weather](#)

North Carolina
Grade 5

Standard Course of Study > Science (2004)

⊕ *Wind direction and speed.*

- BrainPOP [Wind](#)

North Carolina
Grade 5

Standard Course of Study > Science (2004)

⊕ *Precipitation.*

- BrainPOP [Snowflakes](#)
- BrainPOP [Thunderstorms](#)
- BrainPOP [Water Cycle](#)
- BrainPOP [Climate Types](#)
- BrainPOP [Weather](#)

Weather

Teacher and Student Resources

North
Carolina
Grade 5

Standard Course of Study > Science (2004)

+ *Cloud cover.*

- BrainPOP [Clouds](#)
- BrainPOP [Thunderstorms](#)
- BrainPOP [Water Cycle](#)

North
Carolina
Grade 5

Standard Course of Study > Science (2004)

+ *Air pressure.*

- BrainPOP [Tornadoes](#)
- BrainPOP [Weather](#)
- BrainPOP [Wind](#)



North
Carolina
Grade 5

Standard Course of Study > Science (2004)

+ **3.03** *Describe and analyze the formation of various types of clouds and discuss their relation to weather systems.*

- BrainPOP [Thunderstorms](#)
- BrainPOP [Clouds](#)
- BrainPOP [Water Cycle](#)
- BrainPOP [Weather](#)

North
Carolina
Grade 5

Standard Course of Study > Science (2004)

+ **3.04** *Explain how global atmospheric movement patterns affect local weather.*

- BrainPOP [Weather](#)

North
Carolina
Grade 5

Standard Course of Study > Science (2004)

+ **3.05** *Compile and use weather data to establish a climate record and reveal any trends.*

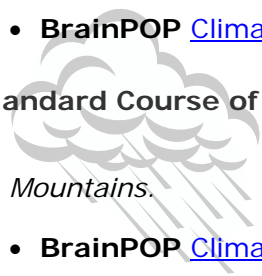
- BrainPOP [Climate Types](#)

North
Carolina
Grade 5

Standard Course of Study > Science (2004)

+ *Mountains.*

- BrainPOP [Climate Types](#)
- BrainPOP [Mountains](#)
- BrainPOP [Plate Tectonics](#)



North

Standard Course of Study > Science (2004)

Weather

Teacher and Student Resources

Carolina

Grade 5

+ *Sea breezes.*

- **BrainPOP** [Climate Types](#)

North Carolina

Standard Course of Study > Science (2004)

Grade 5

+ *Water bodies.*

- **BrainPOP** [Climate Types](#)
- **BrainPOP** [Ocean Currents](#)
- **BrainPOP** [Water Cycle](#)
- **BrainPOP** [Rivers](#)

www.thatquiz.org

FREE account set up, can create classes and give quizzes online....all are graded

Can assign these quizzes below, once you set up a class:

Science EOG Weather Prep: <http://www.thatquiz.org/tq/previewtest?GWBC2591>

Science EOG Prep2: <http://www.thatquiz.org/tq/previewtest?NLKB8874>

Weather Unit Quiz: <http://www.thatquiz.org/tq/previewtest?HPDS3502>

Weather Water Cycle Test: <http://www.thatquiz.org/tq/previewtest?SJRK4266>

Weather Instruments Test: <http://www.thatquiz.org/tq/previewtest?WBMN3433>

Weather test: <http://www.thatquiz.org/tq/previewtest?IDAA6552>

Weather clouds: <http://www.thatquiz.org/tq/previewtest?ZWFII912>

Weather test: <http://www.thatquiz.org/tq/previewtest?VGKT0334>

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[www.mytestbook.com](http://www.mytestbook.com)

FREE account set up, can create classes and give quizzes online....all are graded

Can assign these quizzes below, once you set up a class:

Weather and Prediction of Weather (Under Grade 4, week 24):

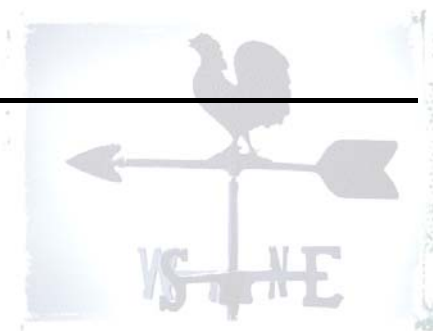
[http://www.mytestbook.com/test\\_start\\_test.aspx?test\\_id=965&user\\_id=107069&user\\_name=tiffanycbritt&topic1=Weather&topic2=Prediction+of+Weather&topic3=&week\\_no=24&test\\_no=1&subject=Science&grade=4&content\\_type=D](http://www.mytestbook.com/test_start_test.aspx?test_id=965&user_id=107069&user_name=tiffanycbritt&topic1=Weather&topic2=Prediction+of+Weather&topic3=&week_no=24&test_no=1&subject=Science&grade=4&content_type=D)

Weather Phenomena and Weather Activities (Under Grade 4, week 25):

[http://www.mytestbook.com/test\\_start\\_test.aspx?test\\_id=981&user\\_id=107069&user\\_name=tiffanycbritt&topic1=Weather+phenomena&topic2=Weather+activities&topic3=&week\\_no=25&test\\_no=1&subject=Science&grade=4&content\\_type=D](http://www.mytestbook.com/test_start_test.aspx?test_id=981&user_id=107069&user_name=tiffanycbritt&topic1=Weather+phenomena&topic2=Weather+activities&topic3=&week_no=25&test_no=1&subject=Science&grade=4&content_type=D)

Water Cycle (Under Grade 4, Week 31):

[http://www.mytestbook.com/test\\_start\\_test.aspx?test\\_id=1052&user\\_id=107069&user\\_name=tiffanycbritt&topic1=](http://www.mytestbook.com/test_start_test.aspx?test_id=1052&user_id=107069&user_name=tiffanycbritt&topic1=)



# Weather

## Teacher and Student Resources

[water+cycle&topic2=evaporation\\_2c+condensation\\_2c+precipitation&topic3=&week\\_no=31&test\\_no=1&subject=Science&grade=4&content\\_type=D](#)