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| **Assessment** |
| **Atmosphere** | **Heat Energy Transfer** | **Wind/Global Weather Patterns** | **Weather Factors/Severe Weather** | **Climate**  |
| * [Atmosphere and Heating](https://quizlet.com/_38uqey?x=1jqt&i=svx05) Quizlet
* [Atmosphere Quizlet Diagram](https://quizlet.com/_3mkmkj?x=1jqt&i=svx05) Quizlet
* [Change in the Atmosphere with Altitude](https://scied.ucar.edu/learning-zone/atmosphere/change-atmosphere-altitude)
 | * [Atmosphere and Heating](https://quizlet.com/_38uqey?x=1jqt&i=svx05) Quizlet
 | * [Wind](https://quizlet.com/_5ju5l9?x=1jqt&i=svx05) Quizlet
* [Global and Local Winds](https://quizlet.com/_99bk4g?x=1jqt&i=svx05) Quizlet
* [Land and Sea Breezes](https://quizlet.com/_8rcenp?x=1jqt&i=svx05) Quizlet
* [Wind 2021 Quizlet](https://quizlet.com/_9h5vaq?x=1qqt&i=svx05)
 | * [Air Masses Diagram](https://quizlet.com/_3xytk8?x=1jqt&i=svx05) Quizlet
* [Air Masses and Fronts](https://quizlet.com/_9e60ps?x=1jqt&i=svx05) Quizlet
* [Severe Weather](https://quizlet.com/_4hwd10?x=1jqt&i=svx05) Quizlet
 | * [Meteorology review quizizz](https://quizizz.com/admin/quiz/605b94e42a87a4001d278aa6)
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| **Unit Assessment** |
| * [Meteorology Unit](https://quizlet.com/_87bg2t?x=1jqt&i=svx05) Quizlet
* [Quizizz Unit Practice](https://quizizz.com/admin/quiz/5ab534fb94b41400201abacd)
* [Meteorolgy Study Guide for Summative 2018 2019 SLH.docx](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/lynchharlows_fultonschools_org/EQiCePAaN4RDkIggojsrTMwBmZGsMvl1aKua1HSBJP7xeQ?e=6qSwcM)
* [Meteorolgy Study Guide for Summative 2018 2019 Key\_.docx](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/lynchharlows_fultonschools_org/EXPKgzs40W9ArnUhyTAQyBMBM3_Cc8Bz5ht_NhGnxh5Rtw?e=EE88qk)
* Study Guides by section:
	+ [Part 1: Atmosphere](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/speakse_fultonschools_org/EXLd-4cQkQ9Gll2S81rCgqwBviNtznNf0SrBozMmcenifw?e=rQlKF0)
		- [Meteorology study guide Pt1 Atmosphere 2021\_ KEY.docx](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/lynchharlows_fultonschools_org/EVzhx7bgVFJPi88bxHSiZCgB1UEZuAGJj8sURahNFV6xSA?e=XJIExf)
	+ [Part 2: Heat Transfer](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/speakse_fultonschools_org/Ee_Vk5En7NtHmphxF47dADEBguAG4N4V6Y04a71hZAmxoQ?e=znqPbs)
		- [Heat Transfer Study Guide Key](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/speakse_fultonschools_org/ESeL1KpCjLJAg1TY4WYKcDcBhzIsnB2hsBBYoOOjXgq0QQ?e=OrX0rq)
	+ [Part 3:](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/speakse_fultonschools_org/Ee_WHR0W2QZFlwg1thhJbZkBCaIz1v-CL2LLyua0Gn-w8w?e=fvbHM5) Wind
		- [Wind Study Guide Answer Key](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/speakse_fultonschools_org/EZFhwobcgNJNs2Prq3lAT60BgTibcwJJ8K0OJTze33roRA?e=p7Fcuu)
	+ [Part 4: Air Masses, Fronts, Weather Events](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/speakse_fultonschools_org/EXFb7HOVyMZCi3jseg2AHfsB8o3aw_RlAhMP7hdQo5TNQw?e=U7z4eI)
		- [Air Masses, Fronts, Weather Events Study Guide Key](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/speakse_fultonschools_org/EYuhgHHIpwhPooI3I2Afm98BTP-IO3JDfSn8v_zbPAwEhA?e=4vAdkx)
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| **Videos and YouTube Playlist -**<https://youtube.com/playlist?list=PLuICOhFgyRtqBTbDzhWCQn2FM5ui5-MAM>[Greatest Discoveries with Bill Nye: Earth Science](https://fultonk12-my.sharepoint.com/%3Av%3A/g/personal/speakse_fultonschools_org/ESMmOPJhgeVHjjFy90aKv1kBcgfQ5PPbKN7wOIPDIC84vA?e=pEN2u0) |
| **Atmosphere** | **Heat Energy Transfer** | **Wind/Global Weather Patterns** | **Weather Factors/Severe Weather** | **Climate**  |
|  |  | * [Air Masses and Fronts](https://youtu.be/OBz3fwXX64A)
* [Weather Fronts](https://www.youtube.com/watch?v=uBqohRu2RRk)
* [Bill Nye WIND](https://www.youtube.com/watch?v=uBqohRu2RRk)
 | * [How a Hurricane is Born](https://youtu.be/4f45jA5UxB0)
* [Thunderstorms 101](https://www.youtube.com/watch?v=zUNEFefftt8)
* [Tornado 101](https://www.youtube.com/watch?v=iMWoYPaQx0Q)
* [Hurricanes 101](https://www.youtube.com/watch?v=lRR6Np3-CB0)
 | * [Flooding on a sunny day](https://oceantoday.noaa.gov/flooding-sunny-day/?utm_medium=email&utm_source=GovDelivery)
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| **Activities/Labs/Demos** |
| **Atmosphere** | **Heat Energy Transfer** | **Wind/Global Weather Patterns** | **Weather Factors/Severe Weather** | **Climate**  |
| * ADI Lab 18 Carbon Dioxide Levels in the Atmosphere
* [Air pressure crush Demo](https://www.weather.gov/jetstream/ll_crunch)
* [Demo water in upsidedown cups](https://fultonk12-my.sharepoint.com/%3Ab%3A/g/personal/speakse_fultonschools_org/ETDkBYRIHbdHhrN9oYeKk3sBOQ0wA5OEr9GXCKznN-h3FA?e=3JOwBy) PDF
	+ [Website](https://www.nsta.org/lesson-plan/why-water-glass)
* [Air Pressure demos](https://fultonk12-my.sharepoint.com/%3Ab%3A/g/personal/speakse_fultonschools_org/EYtG-nxCL_BLshLFXO2bYBkBfUEGltBnN0fsITkKFyj-ag?e=6up91l)
* [Air Pressure demo with water and candle](https://www.youtube.com/watch?v=Eqf_UF1LbTo)
* [Steve Spangler Geyser Tube Kit](https://www.stevespanglerscience.com/store/geyser-tube-fountain-fan-run.html)
* [Steve Spangler Power of Air Kit](https://www.stevespanglerscience.com/store/stem-science-kit-power-of-air.html?utm_content=exp_search_prod)
 | * Heat Transfer Scenes
* ADI Lab 16 Surface Materials & Temperature Change
* [Heat Transfer Lesson and Images](https://fultonk12-my.sharepoint.com/%3Ab%3A/g/personal/speakse_fultonschools_org/EUO1PRTnvElLgGEC_JIr0G8BthKJZ2ybVyRVcHYlA1OSYg?e=XNrl0h)
* Convection Current Coloring
	+ [Digital Word version](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/speakse_fultonschools_org/Eb27y2zLnIFHsarBZHSaQeoB01Rw-x13o7OVALPfVpSeiQ?e=iMY5yz)
	+ [Paper PDF version](https://fultonk12-my.sharepoint.com/%3Ab%3A/g/personal/speakse_fultonschools_org/ESPe1IUOIQFJsszeRh-eWbYB1-L9LuxhYTDYz7lyxPlx6w?e=Fd55Ea)
 | * Differential heating with lightbulb and grid paper demo
* [Differential Heating with heat lamp and 3 angled thermometers](https://fultonk12-my.sharepoint.com/%3Ab%3A/g/personal/speakse_fultonschools_org/EYlJrPkuKh1EiARHM8jCnooBIvsW41H41wUkWRBeIj5nfA?e=YaE9yj)
* [Rising Heat HMH Quick Lab](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/speakse_fultonschools_org/ESVKQqXmR-pLlbCbbhRCuaEBbhHqYGX7Sl4uUfY48C_PTw?e=FvlXpW)
* Daily Demo Air Pressure and Wind in HMH Ed pg 319 (see hot air rise/cold sink with bottles and balloons)
* Land vs Water demo
* [Focus Notes: Wind in the Atmosphere](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/jenningsm_fultonschools_org/EcdOTFHQRg1Gv0rSH2jlqQsBaHIn_zS_aumKdK_APQUpxw?e=paeLCf)
* [Focus Notes: Wind in the Atmosphere Key](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/jenningsm_fultonschools_org/EasL4UbuNa5KmfU1tbds5uABrDv3LE7HyT76GO-FtulH8w?e=9odkHq)
* [Focus Notes\_ V2\_Wind in the Atmosphere.doc](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/lynchharlows_fultonschools_org/EXCUyh9l2ZhJl2QnaLsXuoMBYvYRjeaCyOO5C3v7Ub6Vog?e=NVj0Wu)
* KEY Focus Notes V2\_WInd in the Atmosphere

[https://fultonk12-my.sharepoint.com/:b:/g/personal/lynchharlows\_fultonschools\_org/Eb-nxX7\_JilGuMPNmkoK5Q4Bj\_lvB-7KctgS8UjdQXuoqw?e=gmavO3](https://fultonk12-my.sharepoint.com/%3Ab%3A/g/personal/lynchharlows_fultonschools_org/Eb-nxX7_JilGuMPNmkoK5Q4Bj_lvB-7KctgS8UjdQXuoqw?e=gmavO3)* [Land and Sea Breeze student drawing sheet](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/speakse_fultonschools_org/ETXiW0E7Jd1MsIVUGkNpbFcBgxoSe-Uj5iAneGLir3uVjw?e=QrMkei)
* Compare & Contrast Air Masses & Fronts

[https://fultonk12-my.sharepoint.com/:b:/g/personal/lynchharlows\_fultonschools\_org/EfpdE7ahE7NCuEFP9Mo35LQBurTShZXXOZoLJ\_OXeT608w?e=esENOW](https://fultonk12-my.sharepoint.com/%3Ab%3A/g/personal/lynchharlows_fultonschools_org/EfpdE7ahE7NCuEFP9Mo35LQBurTShZXXOZoLJ_OXeT608w?e=esENOW) | * Lab-Aids: Forecasting
* AMP-IT-UP: Winter Weather Challenge
* ADI Lab 15 Air Masses & Weather Conditions
* ADI Lab 20 Predicting Hurricane Strength
* ADI Lab 21 Forecasting Extreme Weather
* ADI Lab 17 Factors that affect global temperature
* Demo hot and cold water not mixing when cold is on top
* [Focus Notes: Weather](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/jenningsm_fultonschools_org/EY9gfxrx_SRGnDY3lGvNpZoBTkpBNtcIX8IwkoZEfpm2Dg?e=EvWnaz)
* [Focus Notes: Weather - Key](https://fultonk12-my.sharepoint.com/%3Aw%3A/g/personal/jenningsm_fultonschools_org/EWX_avjDg8xHqPiXLP_n4xkBGR8NNbQdS7De-CdcF4KFjQ?e=ORD2HC)
 | * ADI Lab 19 Differences in Regional Climate (Tale of 4 cities)
* [Teach Engineering Global Warming Lesson](https://www.teachengineering.org/lessons/view/cub_weather_lesson06)
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| **Nearpods/PowerPoints/Presentations** |
| **Atmosphere** | **Heat Energy Transfer** | **Wind/Global Weather Patterns** | **Weather Factors/Severe Weather** | **Climate**  |
| * [Atmosphere -HMH](https://fultonk12-my.sharepoint.com/%3Ap%3A/g/personal/jenningsm_fultonschools_org/EcO8Erib0xJDu3xynzYpKUcBewp-QgkbSVHi1R8NzUUVeQ?e=7mggwM)
* [Atmosphere Intro Nearpod](https://share.nearpod.com/e/MdHYDqzHKdb)
 | * [Energy Transfer Heats Earth](https://share.nearpod.com/e/EcFVAA4NVdb)
* [Heat Transfer PPT](https://fultonk12-my.sharepoint.com/%3Ap%3A/g/personal/speakse_fultonschools_org/EZdYPJ7KDKdJoDJSqs_ZhCoBZ6eeIVbug2iKgoTFuwIqIQ?e=HeIq2r)
* [Heat Transfer Scenes Nearpod](https://share.nearpod.com/e/d6iE2kHJVdb)
* [Heat Transfer Scenes PPT with answers](https://fultonk12-my.sharepoint.com/%3Ap%3A/g/personal/jenningsm_fultonschools_org/EddZZjXxEKtDgPbP3Q3q0h0BO7vJlRNHIP3rYV29Xp1Q9w?e=3rP0Ji)
 | * [Air Fronts & Masses Packet](https://fultonk12-my.sharepoint.com/%3Ab%3A/g/personal/lynchharlows_fultonschools_org/EfRzzasAuptGuFlx0kg_ztQBuAx662bazkXtLTQnO_MA9Q?e=lP0KpW)
 | * [Weather Focus Lesson PPT.pptx](https://fultonk12-my.sharepoint.com/%3Ap%3A/g/personal/lynchharlows_fultonschools_org/Eev01VRSB5hDkhnU5e0wOxIBmu97Ot49V33j-CEJ14Yp0Q?e=EbRjRt)
* [Understanding Weather.ppt](https://fultonk12-my.sharepoint.com/%3Ap%3A/g/personal/lynchharlows_fultonschools_org/Ef-tIB50a3RNtkBokqUPr38BRkoYVSCCvaJWDYHZBttDKw?e=K0HkIP)
* [Climate or Weather.2.pptx](https://fultonk12-my.sharepoint.com/%3Ap%3A/g/personal/lynchharlows_fultonschools_org/Eeb2xzSemcZKsCb3AYUynysBenBK2ql7zgNOFC-_V4CrjA?e=iQVTt7)
* [MSP Weather Resources and Heat Transfer.pptx](https://fultonk12-my.sharepoint.com/%3Ap%3A/g/personal/lynchharlows_fultonschools_org/ESgGfKRvQtFJnJbsu-2EC_UBvundmPMEZ1PsiWRobrEVWQ?e=yOi4pz)
* [Weather Forecast Lab NearPod](https://share.nearpod.com/e/hNDXohfjJeb)
* [Weather Forecast Lab PPT](https://fultonk12-my.sharepoint.com/%3Ap%3A/g/personal/jenningsm_fultonschools_org/EY74VIomPnpJijSKnDcUhEoBbZva4Nsc4AteKq9FaYqNfw?e=E0yYJB)
* Weather Fronts Nearpod
* Tornadoes and Thunderstorms Nearpod
* Crazy Cold in Colorado! <https://share.nearpod.com/e/VoSTcE2yJeb>
 | * Meteorology Unit Review NP https://share.nearpod.com/e/FvGTTNSQReb
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| **Textbook - Unit 4** |
| Lesson 1 The Atmosphere | Pages 248 - 255 Answer all ?’s EXCEPT #’s Lesson Review pg 256 & 257 | Digital LessonVirtual Lab - Composition and Structure of the Atmosphere |
| Lesson 2 Energy Transfer | Pages 260 - 269 Answer all ?’s EXCEPT #’s Lesson Review pg 270 & 271 | Digital Lesson:  |
| Lesson 3 Wind in the Atmosphere  | Pages 274 - 283 Answer all ?’s EXCEPT #’s Lesson Review pg 284 & 285 | Digital Lesson: |
| Lesson 4 What Influences Weather? | Pages 288 - 301 Answer all ?’s EXCEPT #’s Lesson Review pg 302 & 303 | Digital Lesson |
| Lesson 5 Severe Weather & Weather Safety | Pages 306 - 317Answer all ?’s EXCEPT #’s Lesson Review pg 318 & 319 | Digital LessonVirtual Lab - When Severe Weather Strikes (hurricanes) |
| Lesson 6 Weather Maps & Weather Prediction  | Pages 322 - 333Answer all ?’s EXCEPT #’s Lesson Review pg 334 & 335 | Digital LessonVirtual Lab - Forecasting the Weather |
| Lesson 7 Climate | Pages 340 - 351 Answer all ?’s EXCEPT #’s Lesson Review pg 352 & 353 | Digital Lesson |
| Lesson 8 Climate Change | Pages 356 - 369 Answer all ?’s EXCEPT #’s Lesson Review pg 370 & 371 | Digital Lesson |

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| **EdHelper or Other Readings** |
| **Atmosphere** | **Heat Energy Transfer** | **Wind/Global Weather Patterns** | **Weather Factors/Severe Weather** | **Climate**  |
| * [Change in the Atmosphere with Altitude](https://scied.ucar.edu/learning-zone/atmosphere/change-atmosphere-altitude)
 |  | * [Global Winds](https://scied.ucar.edu/learning-zone/how-weather-works/global-air-atmospheric-circulation)
* [Air Masses](https://fultonk12-my.sharepoint.com/%3Ab%3A/g/personal/lynchharlows_fultonschools_org/EaDcoOMTz0ZDlg4hCCaCD5cBcJS-C7y3MChFAK0bh8Uf3A?e=shAFbH)
* [It's Just a Front](https://fultonk12-my.sharepoint.com/%3Ab%3A/g/personal/lynchharlows_fultonschools_org/EcmdOcalFLdOvlQkWKwglDwBqmnEMacfPpnH3rOjC7I2SQ?e=6wZamq)
* [Weather or Climate](https://fultonk12-my.sharepoint.com/%3Ab%3A/g/personal/lynchharlows_fultonschools_org/EfRzzasAuptGuFlx0kg_ztQBuAx662bazkXtLTQnO_MA9Q?e=lP0KpW)
* [Air Pressure and Wind](https://fultonk12-my.sharepoint.com/%3Ab%3A/g/personal/lynchharlows_fultonschools_org/EQbiEKYSWj5KqLnLPdphalEBJ2EUv2QNgCPpRqCrVK9zCw?e=w7MkWL)
 | * [Air Masses](https://scied.ucar.edu/learning-zone/how-weather-works/air-masses)
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| **BrainPop** |
| **Atmosphere** | **Heat Energy Transfer** | **Wind/Global Weather Patterns** | **Weather Factors/Severe Weather** | **Climate**  |
| * Atmosphere
* Earth
* Ozone Layer
 | * Heat
* Heat Transfer
* Greenhouse Effect
 | * Weather
* Wind
* Latitude & Longitude
 | * Thunderstorms
* Tornadoes
* Hurricanes
* Clouds
* Humidity
 | * Climate Types
* Climate Change
* Air Pollution
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| **GIZMOS** |
| **Atmosphere** | **Heat Energy Transfer** | **Wind/Global Weather Patterns** | **Weather Factors/Severe Weather** | **Climate**  |
|  | * Conduction and Convection
* Heat Transfer by Conduction
* Convection Cells
* Greenhouse Effect
 | * Coastal Winds and Clouds
 | * Hurricane Motion
* Observing Weather
* Weather Maps
* Relative Humidity
 | * Comparing Climates (Customary)
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| **Probes** |
| **Atmosphere** | **Heat Energy Transfer** | **Wind/Global Weather Patterns** | **Weather Factors/Severe Weather** | **Climate**  |
|  | * Camping Trip
 | * Does the ocean influence our weather or climate?
 | * Weather Predictors
* Coldest Winter Ever
 | * Are they talking about weather or climate?
 |