

The learning outcomes; what students will know

1. ecosystems and climate interactions
2. effects of climate change on life cycles
3. climate change and habitat loss
4. biodiversity
5. weather vs climate
6. what makes weather and climate happen
7. what affects climate
8. the greenhouse effect
9. treaty rights
10. traditional ecological knowledge
11. climate change affecting culture
12. what organisms will be affected locally
13. does local data show climate change

Day 1		
<p>Outcomes: ecosystems and climate awareness</p> <p>1 introduce climate change: what do you know about polar bears, sea level, glaciers, invasive species</p> <p>climate change- what else might be affected? discuss</p> <p>2 GWOW website Short video</p> <p>http://www.g-wow.org/en-us/climatechange/default.aspx</p> <p>3 Looking at interactive maps</p> <p>http://ccr.aos.wisc.edu/climate_modeling/Wisconsin_Climate/</p> <p>draw your own conclusion-discuss</p> <p>4 Superior Coastal Ecosystem camp trip—show slides</p> <p>discuss application and costs, cookie dough fund raiser</p>		
Day 2		
<p>1 webquest: climate change- what else might be affected?</p> <p>look up _(from yesterdays discussion)_____ :how is it affected by climate change? Create mini presentation using iPad</p> <p>report to class in ---min</p> <p>Discuss each</p>		

Day 3	
<p>Outcomes: effects of climate change;Begin Andrill activities (Link from GWOW website)</p> <p>1 Phenology: Step together step activity:life cycles interwoven <i>create a life cycle wheel and demonstrates how climate changes can affect the life cycle patterns of dependent species.</i> <i>Cut out and create wheel</i></p>	
Day 4	
<p>1 Continue life cycle study: Step together Step activity 2 Show Power point 3 Assign questions in parts 2-4</p>	
Day 5	
<p>Outcomes: climate change and habitat loss 1 Andrill activity Biodiversity and Habitat loss <i>Diversity of mountain biome habitats and how climate change will affect the plants and animals that live there</i> <i>Create chart with sliding portion</i> research animals in mountain biomes, complete chart</p>	

Day 6	
<p>1 Review step by step questions with wheel on screen 2 Completing Biodiversity and Habitat loss research animals in mountain biomes <i>Diversity of mountain biome habitats and how climate change will affect the plants and animals that live there.</i> 3 Show Power point at end 4 Assign questions A-L</p>	
Day 7	
<p>Outcomes:definitions 1 Discussion: what is Biodiversity, Weather vs climate, what makes weather and climate happen? (sun)</p>	

	<p>2 how is Wisconsin's climate changing slides-take notes on what is changing http://www.wicci.wisc.edu/climate-change.php</p>	
<p>Day 8</p>		
	<p>1 Playing Jeopardy in team of 3-4; On GWOW flashdrive under power points</p>	
<p>Day 9</p>		
	<p>Outcomes: Weather forecast daily vs yearly 1 Continue and complete Jeopardy 2 begin webquest: what affects climate? https://eo.ucar.edu/kids/green/warming5.htm (Also for review) 10 minutes in any group/ 15 present findings/ take notes</p>	
<p>Day 10</p>		
	<p>Outcomes: what affects climate, treaty rights, tek 1 finish: webquest: what affects climate? https://eo.ucar.edu/kids/green/warming5.htm present findings/ take notes 2 GWOW website Video on Ojibwe treaty rights and use of land and water— define traditional ecological knowledge</p>	
<p>Day 11</p>		
	<p>Outcomes: climate change and culture 1 introduce GWOW website: Ojibwe Lifeways fishing Habitat, distribution, climate related issues 2 assign Connect with culture activity guide page 1 Use menu of resources to complete; start with Growing up Ojibwe- Tommy Sky p 1-6</p>	

	http://www.glifwc.org/publications/pdf/GrowingUpOjibwe_Supplement.pdf	
Day 12		
	<p>GWOW website http://www.g-wow.org/en-us/trout_walleye/default.aspx 1 what could affect fish populations? 2 More Tommy Sky and the Ojibwe year Connect with culture activity guide page 1</p>	
Day 13		
	<p>1 Videos on how climate change is affecting people, our culture http://climatewisconsin.org/story/fly-fishing and others 2 complete Connect with culture activity guide page 1 3 review for quiz https://eo.ucar.edu/kids/green/warming5.htm</p>	
Day14		
	<p>Outcomes: Weather v climate, Greenhouse . What affects climate 1 Quiz on climate https://eo.ucar.edu/kids/green/warming5.htm 2 review1-4 Connect with culture activity guide page 1 3 introduce tree atlas http://www.fs.fed.us/nrs/atlas/tree/318 how species distribution will fair also check animals on this site 4 begin Web quest: What other organisms will be affected? HOW? Endangered species, invasive species, sea ice, glaciers List of animals, plants from first day</p>	

Day15		
	<p>Outcomes:What organisms will be affected? 1 tree atlas http://www.fs.fed.us/nrs/atlas/tree/318 how species distribution will fair also check animals on this site 2 What trees will move into our area?</p>	

	<p>3 Web quest: What other organisms will be affected? HOW? Endangered species, invasive species, sea ice, glaciers List of animals, plants from first day Create a short presentation with facts (your words), pictures, Map?</p>	
<p>Day 16</p>		
	<p>1 Presenting webquests</p>	
<p>Day 17</p>		
	<p>1 Finish presentations 2 Looking at data- graph high temps and low temps from utility bill copies</p>	
<p>Day18</p>		
	<p>Outcomes: does local data show climate change 1 Finish and share: graph high temps and low temps from utility bill copy- Lay out graphs in monthly order; is that what you'd expect? 2 Does it look like climate change- skeptical science-discuss why people are skeptical about climate change 3 Look for other data (example list); show what you found, send to all http://dnr.wi.gov/lakes/clmn/ 4 discussing project ideas from Gwow website http://www.epa.gov/climatestudents/solutions/index.html Choose project---looking at data Working on project</p>	

<p>Day19</p>		
	<p>Outcomes:final project 1 mini quiz: list 5 things that will be affected 2 Climate change project 1. Make a statement: Climate is changing...or not 2. What's the difference between climate and weather? 3. Find a local example of a change that you can graph (Southwest Wisconsin, Wisconsin) 4. Research how it affects people and what we can do?</p>	

	<p>5. Make a poster, brochure... discussing project ideas from Gwow website http://dnr.wi.gov/lakes/clmn/ http://www.epa.gov/climatestudents/solutions/index.html Working on project-</p>	
<p>Day 20</p>		
	<p>Working on project; lead them thru making a paper brochure or poster</p>	
<p>Day 21</p>		
	<p>Completing project DUE Tomorrow Step 4 http://www.epa.gov/climatestudents/solutions/index.html</p>	
<p>Day 22</p>		
	<p>present projects to class: describe what you've studied and what you've found out</p>	