

Learning Target 6.3 (Climate Change)

I can explain how geologic evidence indicates climate changes have occurred during Earth's history.

- 1) Get out your notebooks
- 2) Open it to your climate change notes from earlier this week
- 3) Quiz is rescheduled for Wednesday

L.T. 6.1 Plate Tectonics

- Name and locate on a map the location of a convergent, divergent and transform plate boundaries
- Name the geological formation at each boundary.

L.T. 6.3 Climate Change

- Be able to provide examples of multiple pieces of evidence supporting climate change.
- Explain how feedback loops accelerate climate change.
- Explain how ice core samples give scientists a glimpse of atmospheric composition in the past.

Feedback Loops:

** Natural Systems seek this state.*

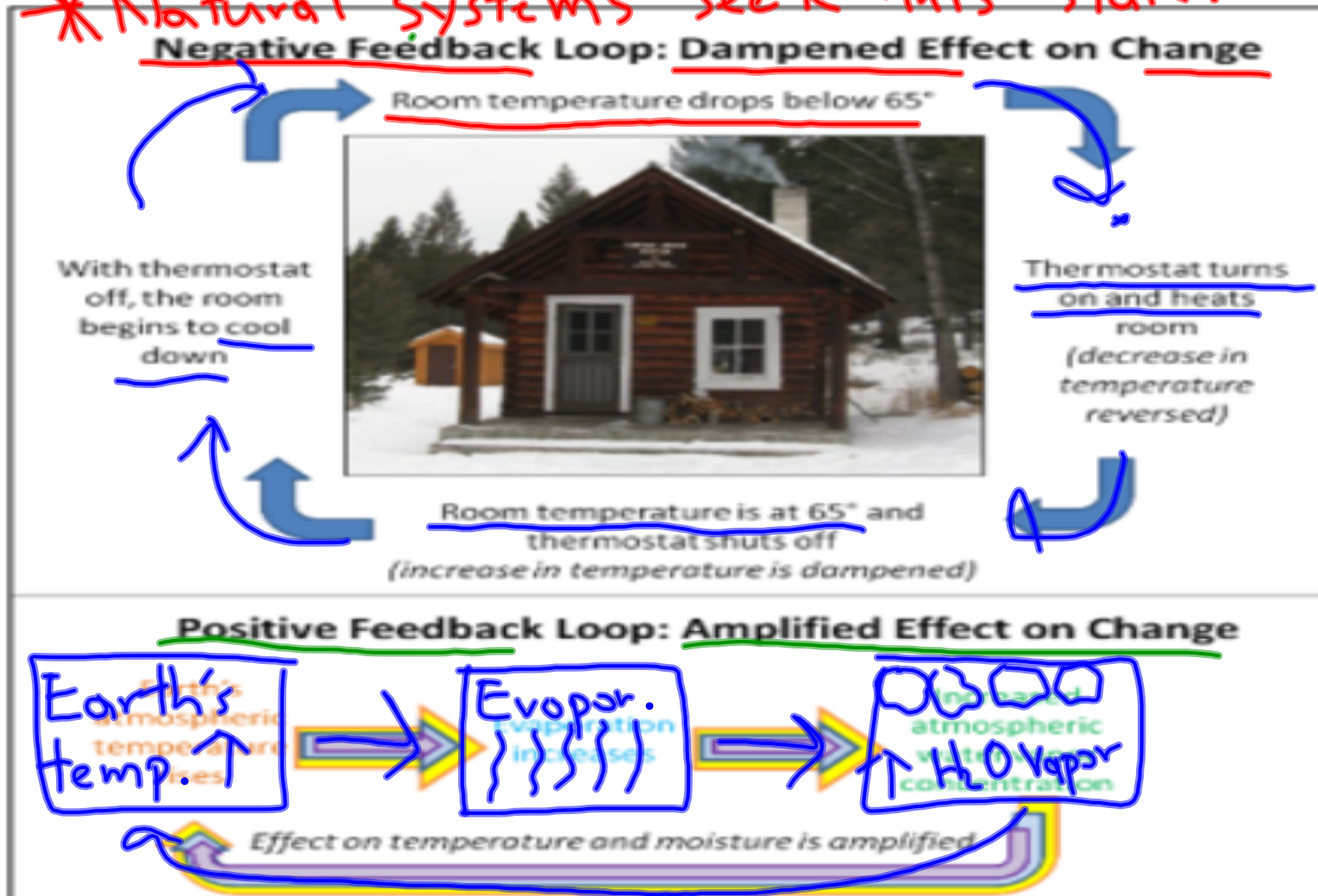
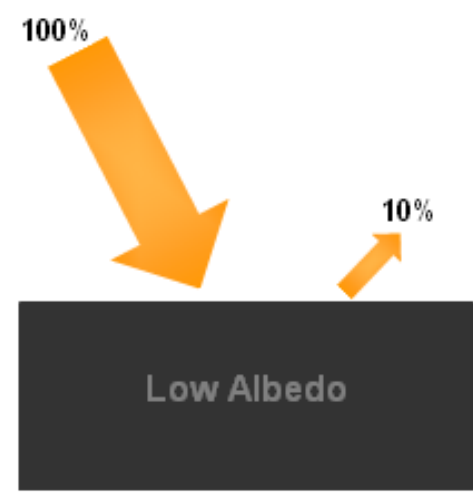
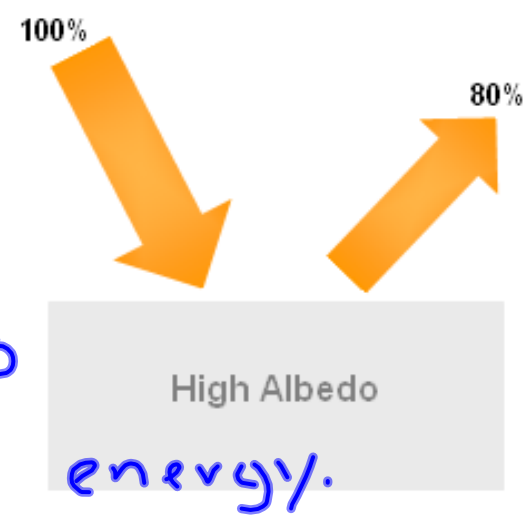
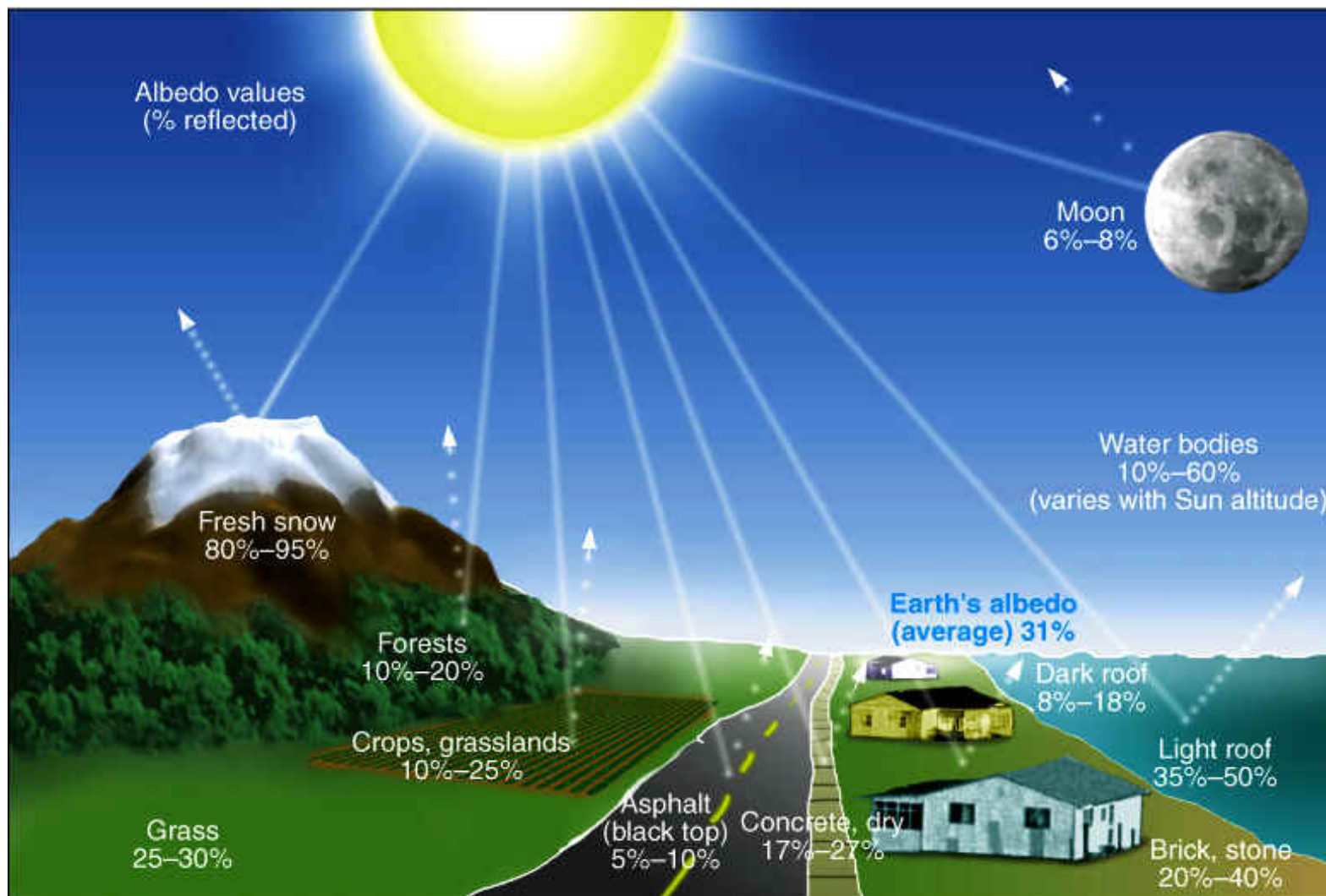


Diagram of negative and positive feedback loops. Image by Monica Bruckner.

Albedo:

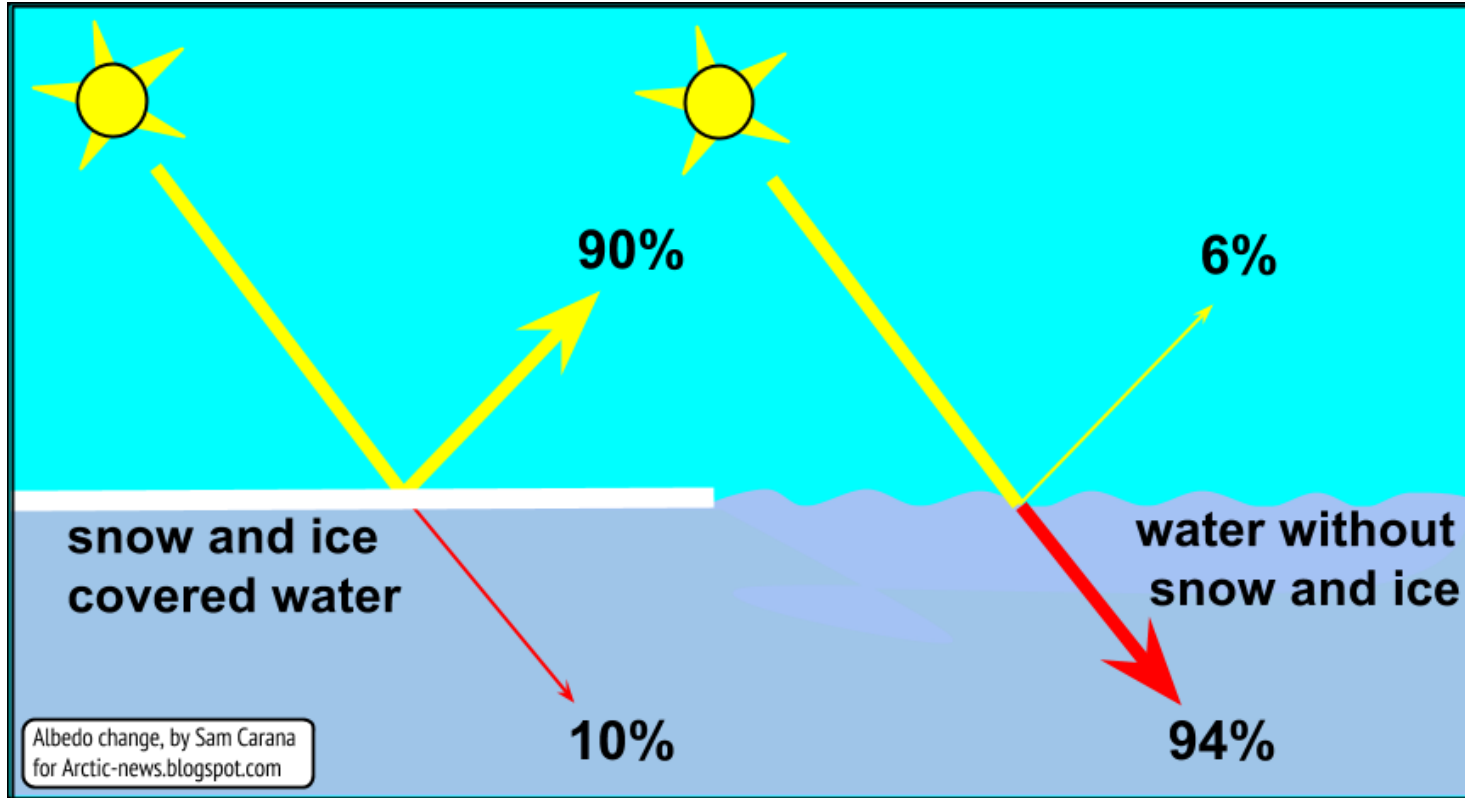
Ability of
a surface to
reflect heat
energy.





Albedo in the Arctic

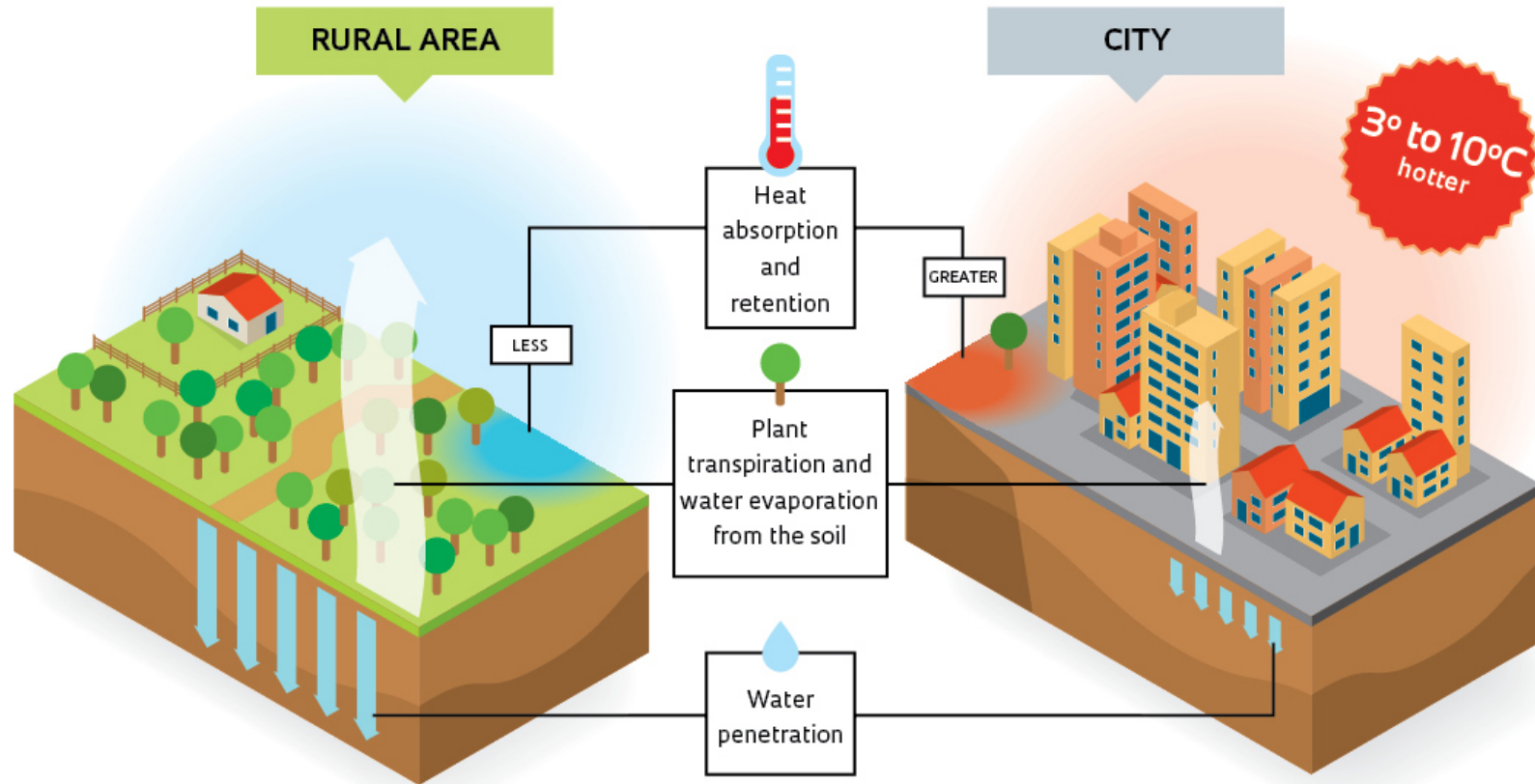
Positive Feedback Loop



Urban Heat Island Effect

Urban air temps. are higher compared to surrounding areas.

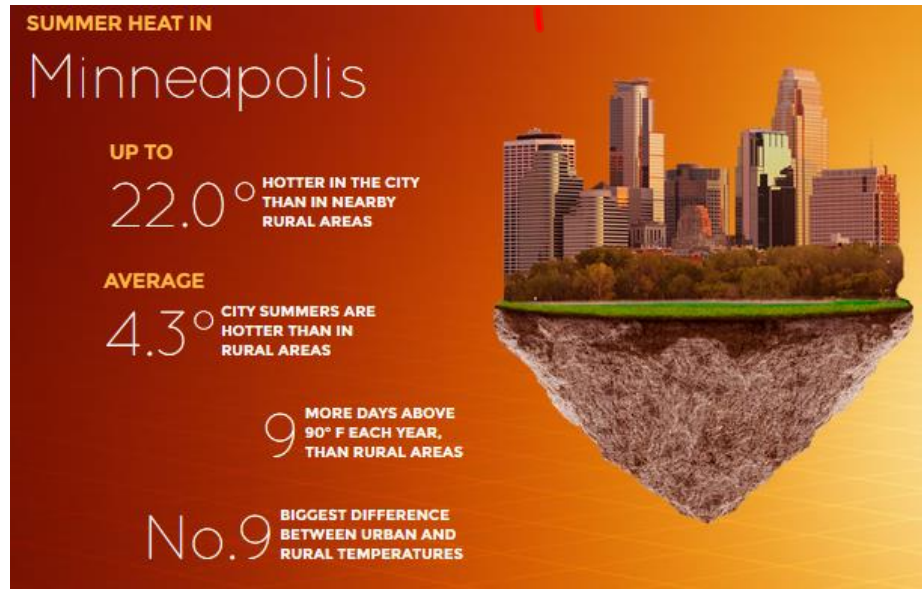
Why the urban heat island effect occurs

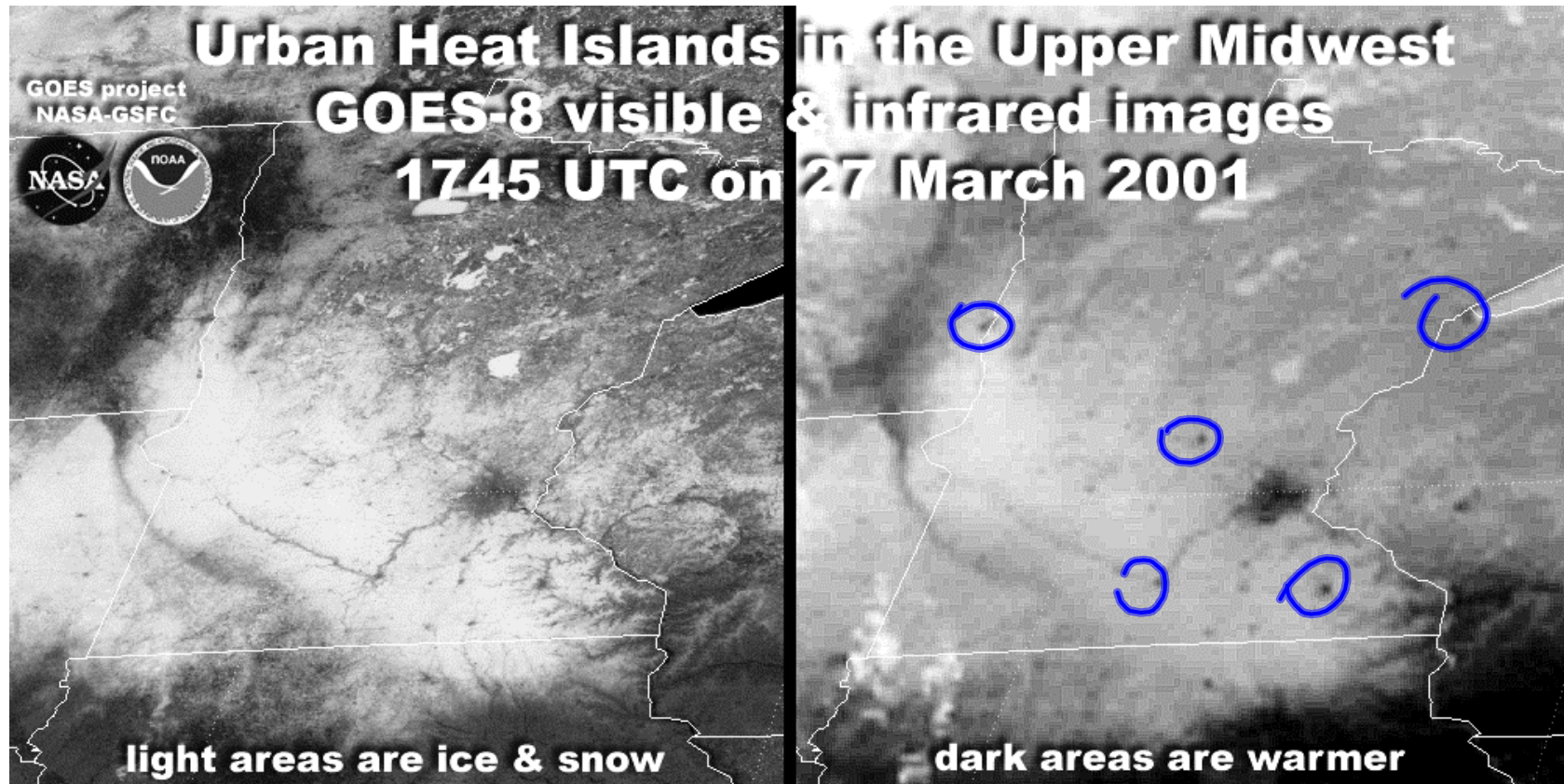


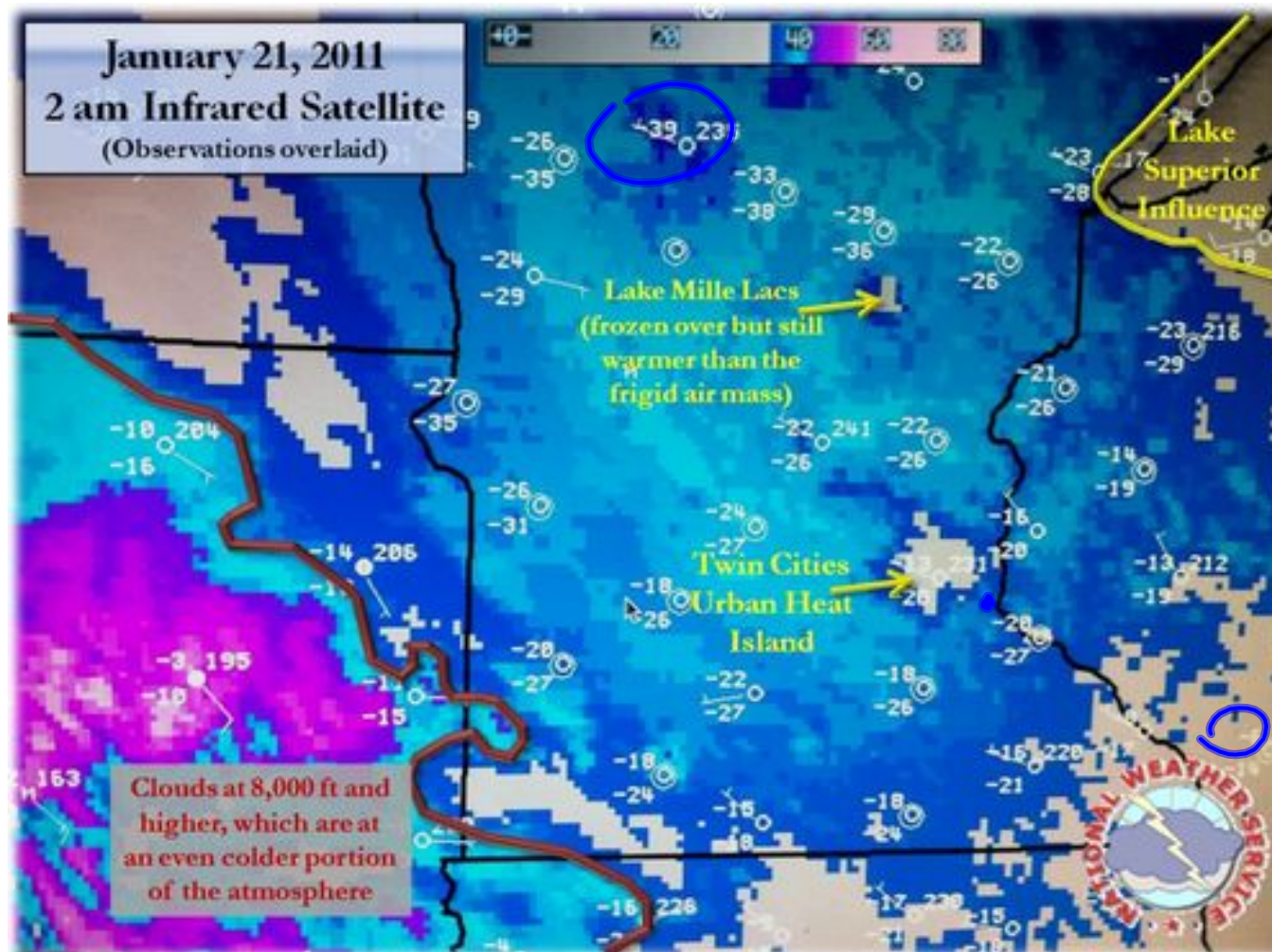
GRAPHIC ALEXANDRE AFFONSO

- Columbus (0.84°F per decade)
- Minneapolis (0.77°F per decade)
- ~~• Baltimore (0.66°F per decade)~~
- Louisville (0.65°F per decade)
- St. Louis (0.64°F per decade)
- Wichita (0.60°F per decade)
- ~~• Birmingham (0.58°F per decade)~~
- ~~• New Orleans (0.56°F per decade)~~
- Des Moines (0.56°F per decade)
- Oklahoma (0.55°F per decade)

TOP 10:
 Cities with fastest-growing urban heat islands







Car Production by the Numbers

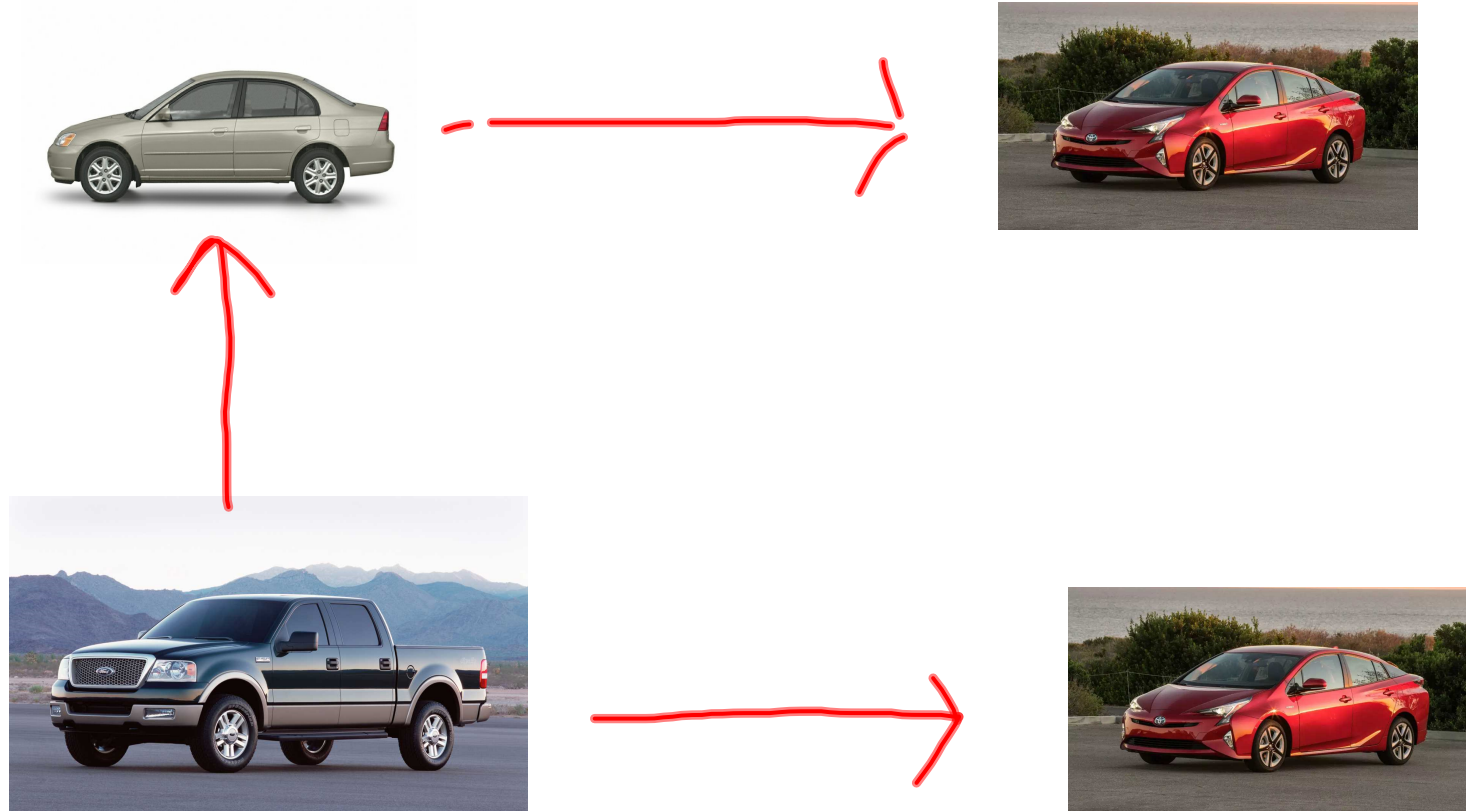
- In its first year, the new car is responsible for 15.25 tons of CO₂ (12 for production, 3.25 during use). That's about 3.5 years of using the old car at 30 mpg, in terms of carbon emissions.
- 75,000 gallons of water to produce one ton of steel.
- average car contains about 2,150 pounds of steel, that means over 80,000 gallons of water is needed to produce the finished steel for one car.



New Car 1st Year

15 ton CO₂
- 13 ton building
- 3 Driving

Is it better for the Environment to buy a new fuel efficient car keep your old car running?



Is it better for the Environment to buy a new fuel efficient car keep your old car running?

- 1) Read the article hand out to your table, divide sections so everyone participates.
- 2) Highlight important information pertaining to the above question.
- 3) Make a bullet list of facts/points and write them on your white board.

Title:

Source/Date:

Yes or No

-
-
-