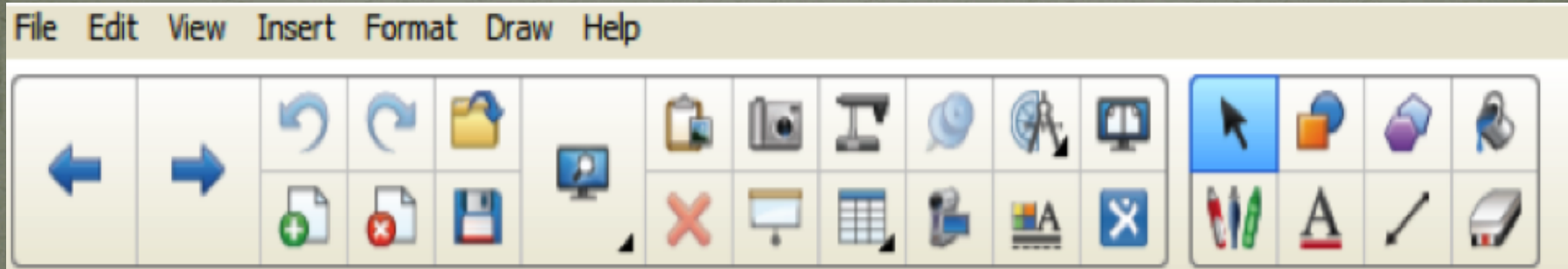


Modifying Older Curriculums for Newer Technologies: An E.S.T.E.M. Model

A. Keithley

SMART Notebook Basics: Tool Bar



SMART Notebook Tools: Part I



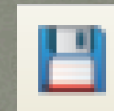
Back one page



Open a Notebook File



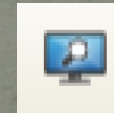
Forward one page



Save Notebook File



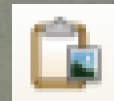
Undo



Full Screen Mode



Redo



Paste from Clipboard



Add a new page



Delete



Delete a page



Capture

SMART Notebook Tools: Part II



Pointer



Text



Lines



Eraser



Pens



Color Fill



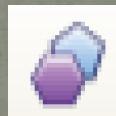
Dual Page View



Pin Page



Shapes



Regular Polygons



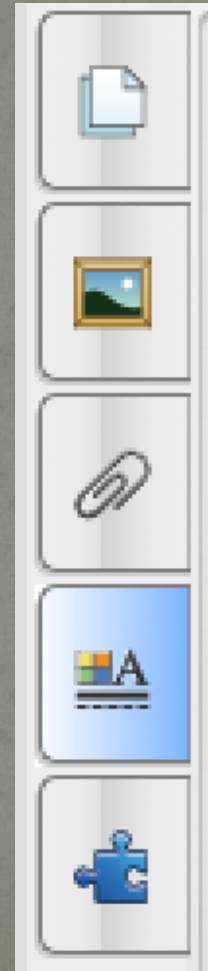
Screen Shade



Table

SMART Notebook Side Tabs

- Page Sorter
 - Thumbnail page images
- Gallery
 - Images, animation, audio
- Attachments
 - Add attachments/links
- Properties
 - Format shapes, objects, text
- Add-Ons
 - Software add-ons



Lectures

- Most lecture pieces in older curriculum are long, written, and paper/pencil
- Ways to fit into SMART technology:
 - Original files
 - Screenshots of files
 - Tabbed pages
 - Diagrams with audio

Original Files

- Upload desired file into the “Attachments” Side Tab
- Add new page using the “Add a new page” tool icon
- Drag file from “Attachments” directly into the new page
- Students can write, draw, and highlight over the text using “Pen” or “Text” tool icons

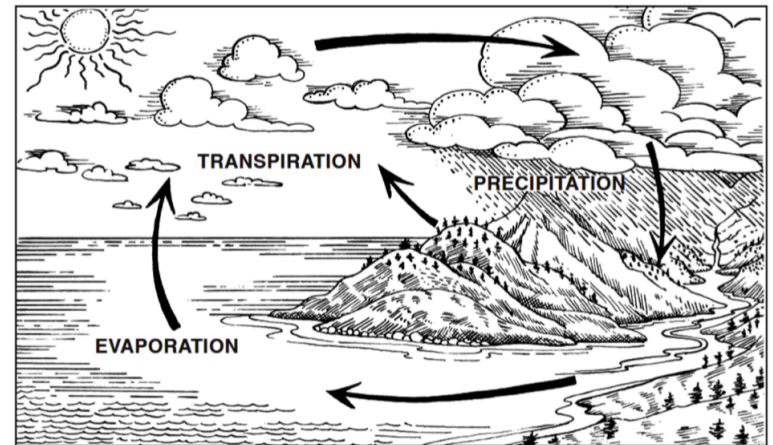
The screenshot displays a digital workspace interface. At the top, a toolbar contains various icons for navigation and editing. Below the toolbar, a file upload area shows a table with the following data:

Filename	Size
SS3_Watercycle.pdf	374 K

To the left of the table is a vertical sidebar with icons for different functions, including a paperclip icon for attachments. The main workspace area contains a document titled "SS3_Watercycle.pdf". The document text describes the water cycle, mentioning evaporation, transpiration, and precipitation. A diagram labeled "Figure 2. Water Cycle" illustrates these processes. The diagram shows water evaporating from the ocean and transpiring from plants into the atmosphere, where it condenses into clouds. Precipitation falls as rain or snow over land and water. On land, water infiltrates the ground or runs off into a river. The diagram also shows water flowing back into the ocean. A "Vocabulary" sidebar on the right lists terms: aquifers, drought, evaporation, flood, ground water, infiltration, precipitation, rain shadow, runoff, transpiration, and water table. At the bottom of the workspace, there is an "Auto-hide" checkbox and a "Extend Page" button.

Screenshots of Files

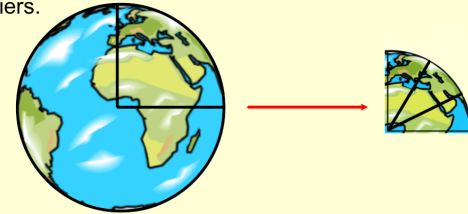
- Take screenshots of text or images from files and insert into SMART Notebook
- PCs:
 - Alt + Print Screen (PrtSc)
 - Windows key + PrtSc
 - “Accessories” folder → Snipping Tool
- Macs:
 - Command + Shift + 4
 - Select section you want
 - Screenshot appears on desktop



Tabbed Pages

- Add a box from “Shape” icon; choose fill/line colors
- Search for “pull tabs” in the Gallery Side Tab
- Drag desired pull tabs into page and place where you’d like the tabs to be
- Copy the page the same number of tabs you put in
 - EX: 3 tabs = 3 page copies

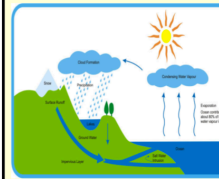
Water is the priceless resource on which all growing things depend. Water covers about three-quarters of the earth's surface. Of this, only a small amount is fresh water, less than one-third of which is useable by humans. The rest is lock in the polar ice caps and in glaciers.



1

2

3



The hydrologic (water) cycle is an endless process of water being exchanged among clouds, land and oceans. The amount of water circulating remains about the same but can follow many different routes.

Water molecules from ocean and land surfaces are warmed by the sun and **evaporate** into the the atmosphere as water vapor. At the lower temperature and pressure of high altitudes, the water vapor **condenses** into clouds to produce **precipitation** (rain, snow, sleet, hail). About 7/8 of the precipitation falls directly into the oceans.

On land, the precipitation may run off surfaces into lakes, rivers and streams, or infiltrate into the soil or be absorbed by plants. Water not absorbed by plants becomes ground water that is often pumped back to the surface or may eventually emerge from springs. Through **transpiration** - evaporation of water through plant processes - water is also recycled into the atmosphere.

The hydrologic cycle does not distribute water evenly around the earth. When precipitation is low in a certain area and groundwater levels drop, the condition is called a **drought**. When large amounts of water fall in a short time, the land cannot absorb all of it and rivers cannot hold it within their banks. Water pours over the land, causing a **flood**.

1

2

3

The water cycle is the foundation for examining water in any form. While this process transports and purifies water, its effectiveness may be reduced by such factors as vegetation removal (reducing transpiration) and atmospheric pollution (adding contaminants to otherwise pure vapor).



The location and availability of fresh water often influence where people settle and population prosper. Major cities are often located on or near large bodies of fresh water. This provides easy access to the water supply for drinking, industry, transportation, recreation, and agriculture.

Today, population growth and industrialization throughout the world continue to increase the demand for water. As a result of the great demand and human usage, water can become polluted in several ways - sewage, nutrient, chemicals, toxic substances, sediment, and heat. Wise management of this natural resource will determine if we have the quality (condition of water) and quantity (amount available for use) to meet future demands.

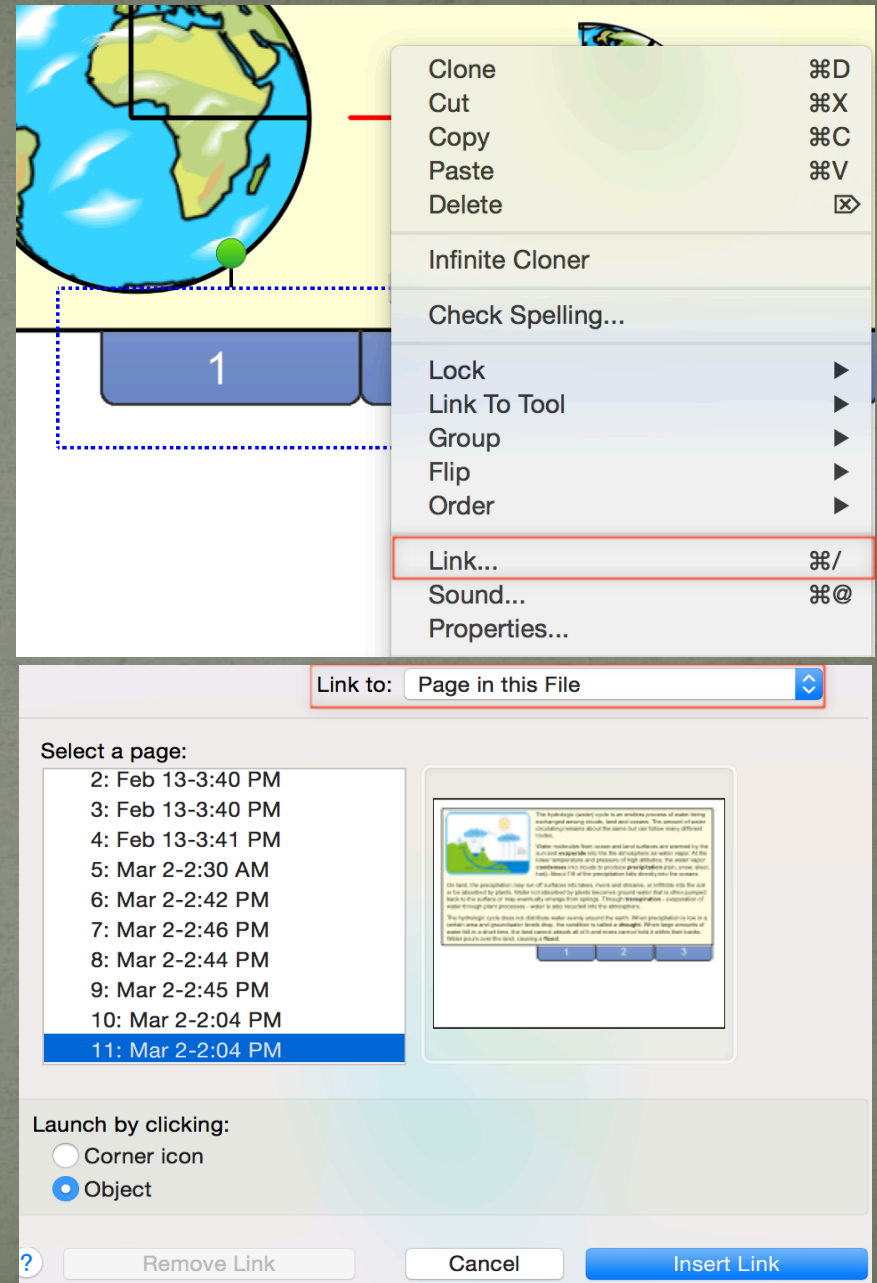
1

2

3

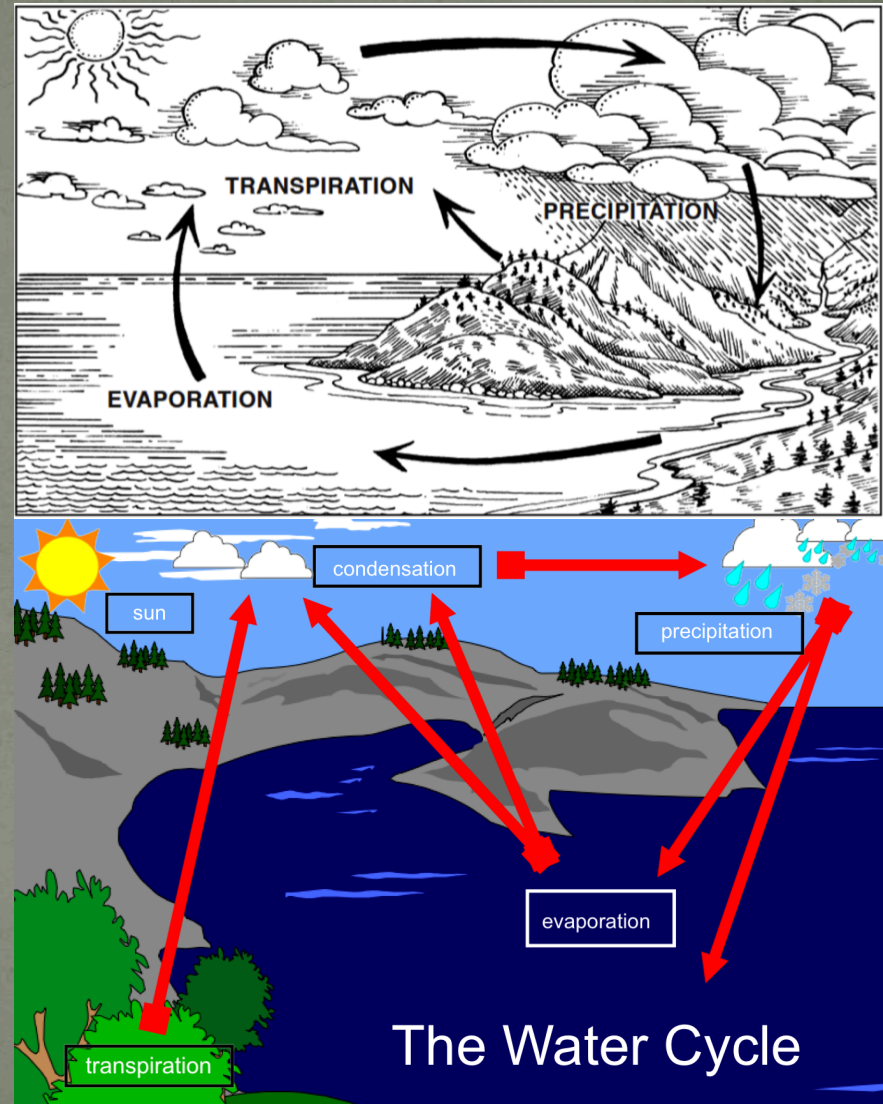
Linking Tabs

- Select the pull tab
- Click right top arrow
- Select “Link...”
- Select “Link to: Page in this File” and choose corresponding page
- Click “Insert Link” button
- Do this for all of the tabs on each copied page



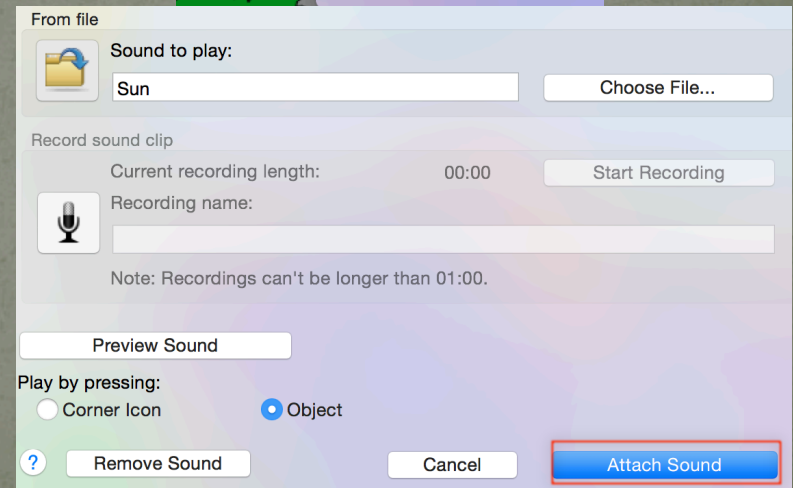
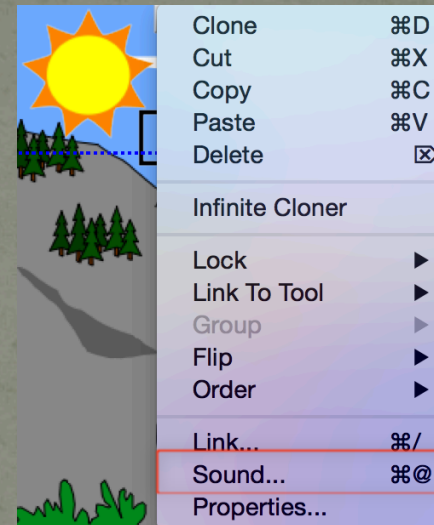
Diagrams

- Directly insert diagram from screenshot, file, or image search
 - Write, highlight, or draw on it
- Insert a diagram from searches in the Gallery Tab
 - Write, highlight, or draw on it
- Create your own diagram with images, shapes, and text
 - Write, highlight, draw, and move pieces (images/text)



Adding Audio

- Can record audio of written lecture components to add engagement
- Select object (image or text) you want audio in
- Click top right arrow
- Select “Sound...”
- Add a pre-recorded audio file or record straight from a computer/microphone
- Select “Attach Sound”



Activities

- Most activities in older curriculum are paper and pencil based
- Ways to fit into SMART technology:
 - Direct Copies
 - Drag and Drop
 - Click to Reveal
 - Inserting Web Browsers
 - Inserting Videos
 - Inserting Links
 - Utilizing Gallery Tab Items

Direct Copies

- Add direct files or screenshots (see previous slides for directions)
- Re-write text using the “Text” tool icon and move it around using the “Select” tool icon
- Expand for workspace by creating activities on two pages while using “Dual Page View” tool icon

How many gallons of water are you?

1. Weigh yourself: _____ pounds
2. Multiply your weight by 2: _____ pounds
3. Divide your answer by 3: _____ pounds
(This is the approximate number of pounds of water in your body)
4. Divide your answer by 2: _____ pounds
(A quart of water weighs about 2 pounds)
5. Divide your answer by 4, making you _____ gallons of water total!
(There are 4 quarts in a gallon)

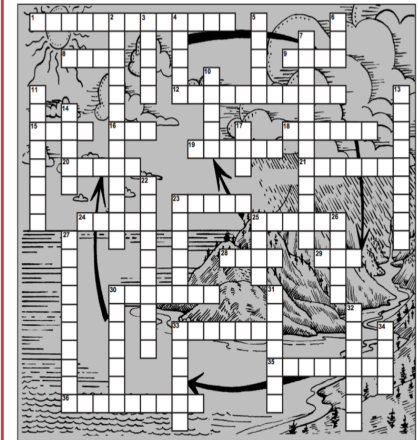


Across

1. Loss of water from plants through evaporation and as a byproduct of photosynthesis.
8. A _____ is an inland body of water larger than a pond.
9. A form of precipitation that falls to earth as frozen six-sided crystalline flakes.
12. Conversion of water from a liquid form to a vapor.
15. A hole drilled into the earth to get water.
16. Frozen water.
18. A current or flow of water running along the surface of the earth is called a _____.
19. The zone of water infiltration where all the spaces between the rocks and soil particles are filled with water is called _____ water.
20. The largest body of water on the surface of the earth.
21. Layers of porous underground rock that act as water reservoirs.
23. Frozen rain.
24. A large mass of water vapor condensed into billions of fine water droplets is called a _____.
25. Water that drains over the surface of the land.
28. Small rounded pieces of ice that sometimes fall during thunderstorms.
29. A cloud at ground level.
30. Extended period of less than normal precipitation.
31. Large accumulations of ice in the polar areas and at high elevations in the mountains.
35. Well water that flows to the surface under its own natural pressure.
36. All the land area that drains into a particular body of water.

Down

2. Rain, snow, sleet, or hail falling to the ground.
3. A _____ is a natural stream of water, larger than a creek, and often emptying into an ocean or lake.
4. The upper level at which soil is saturated with water is called the water _____.
5. Water _____ is the gaseous form of water.
6. Water vapor condensed into the form of water droplets is called _____.
7. Entry of water into the soil.
10. The _____ cycle is the process of circulating and distributing fresh water on the earth.
11. The temperature at which air is saturated with water vapor.
13. When soils can no longer hold any more water they are called _____.
14. When a stream channel overflows its banks.
17. The energy for driving the water cycle comes from the _____.
22. The _____ cycle is an endless process of water exchange among clouds, land, and oceans.
23. A point at which groundwater comes to the surface.
25. Precipitation in the form of liquid water drops.
26. Frozen water vapor on the earth's surface.
27. An area that receives less precipitation because of its position on the leeward side of a mountain or other landform (two words).
30. Very light rain.
31. Any water flowing or standing on the ground is called _____ water.
32. The _____ Ocean is the primary source of water vapor that falls as precipitation on Oregon and the Northwest.
33. A special type of spring that ejects warm water under pressure into the air.
34. Air movement, called _____, speeds up the process of evaporation.



Word list

glacier	drought	hail	river	surface
well	flood	rain	saturated	table
stream	wind	ice	vapor	vapor
transpiration	frost	lake	dew	rain shadow
cloud	geyser	sleet	spring	hydrologic
drizzle	Pacific	ocean	infiltration	water
aquifer	dewpoint	precipitation	artesian	evaporation
watershed	ground	fog	runoff	

“Drag and Drop”

- Add text and images you want to be movable to the spot you want them to end up
- Add boxes from the “Shape” tool icon that go around the images and text pieces
 - Lock the background and all boxes in place (see below)
- Drag all of the “moveable” images and text to one side
- Locking:
 - Select objects → click top right arrow → “Lock” → “Lock in place”

