

## Integrated Science - Hydrosphere 7 & 8 (Contour Maps and Watersheds – How To...)

### Watersheds

- Definitions
  - watershed / drainage basin
  - drainage divide (ridge)
  
- find the waterways and bodies of water on the given map segment (*find all of them*) - color them blue
  
- identify your water body of interest, its mouth, and its tributaries
  - for a river / stream / brook ...
    - find the mouth (M)
      - where the flowing water flows **into** a larger body of water at a lower elevation than the river / stream / brook... of interest
      - label the mouth with a big 'M'
    - find the tributaries (the waterways flowing **into** your river / stream / brook ...)
  
  - for a lake / pond / wetland / ...
    - find the outflow (O)
      - if the lake flows into another river / stream ..., the outflow is the point where the lake turns into the river / stream
      - if the lake is the “end of the water road”, then the lake itself is the “outflow”
      - label the outflow with a big 'O'
    - find the tributaries (the waterways that flow **into** your lake / pond / wetland...)
  
- find **all** the high points of land on the map segment you have - mark them with red
  
- outline the watershed boundary - you are looking for the “bowl of land” that “dumps” its water into the river / stream / brook / lake / pond / puddle ... of interest
  - two general rules
    - the watershed boundary will connect high points of land
    - the boundary will be perpendicular to contour lines
  - for a river / stream / brook / ...
    - find the sources (including the headwaters) of the river / stream / brook ... and of the tributaries flowing into the river / stream / brook ...
      - write a big 'S' next to each source
    - starting at the mouth, connect the point of land at the mouth to the nearest high point of land
    - continuing around the sources of the tributaries and of the river / stream / brook / ...
      - find the **highest** points of land between the river / stream / brook / ... and any other surrounding waters
      - connect these highest points of land, remembering to make your boundary perpendicular to contour lines, **AND** along ridgelines

(Continued)

- for a lake / pond / puddle / ...
  - find the headwaters of the tributaries flowing **into** the lake / pond / puddle / ...
    - write a big 'H' next to each headwater
  - if the lake / pond / puddle ... flows into another river / stream / brook / ...
    - do just what you would do to outline the watershed for a river / stream / brook ...
  - if the lake / pond / puddle ... is the mouth
    - continuing around the headwaters,
      - \* find the **highest** points of land between the headwaters and any other surrounding waters
      - \* connect these highest points of land, remembering to make your boundary perpendicular to contour lines, **AND** along ridgelines