



Coordinator notes: I break the class into teams of 3 to 6. You can limit the study area size and prioritize the team assignments below based on class size. Give each team **very** clear boundaries for safety. There are (2) teams on water flow, as this is usually the team that takes the most time – I also load this team up with cheap levels from a dollar store to help them ‘guesstimate’ areas of potential fast vs. slower water flow.



TEAM #1 – OVERSTORY

- 1. Locate the base of every tree within our study boundaries.**
- 2. Draw a circle on the map to show base of each tree. Please draw the circles roughly to the scale of the map and proportionate to the circumference of the tree.**
- 3. Estimate the percentage of visible sky straight above the study area.**
- 4. Estimate the percentage of ground covered by fallen tree leaves, branches and other debris covering the study area.**
- 5. Discuss the question with your team – How do you think the trees affect water flow in a storm?**



TEAM #2 – DOWNSPOUTS & DRAINS

- 1. Locate every downspout in the study area.**
- 2. Note the location of each downspout on the map using the symbol:** 
- 3. Locate every storm drain in the study area.**
- 4. Note the location of each storm drain on the map using a symbol that looks similar to:** 
- 5. Discuss the question with your team – How do you think the downspouts and storm drains affect water flow in a storm?**

TEAM #3 – WATER FLOW

- 1. Delineate your team's assigned section of the study area on the map.**
- 2. Study the ground in your assigned section of the study area and predict where water will flow or puddle in the next storm. Use the levels and look for evidence of past flows to test your predictions.**
- 3. Delineate where you think puddles will form on the map.**
- 4. Draw arrows on the map to indicate where and the direction you think water will flow on the map. Use a single lined arrow  to indicate slower flows and double-lined arrows to indicate faster flows. .**
- 5. Discuss the question with your team – How do you think the speed and direction of the water flow will affect the landscape in a storm?**

TEAM #4 – WATER FLOW

- 1. Delineate your team's assigned section of the study area on the map.**
- 2. Study the ground in your assigned section of the study area and predict where water will flow or puddle in the next storm. Use the levels and look for evidence of past flows to test your predictions.**
- 3. Delineate where you think puddles will form on the map.**
- 4. Draw arrows on the map to indicate where and the direction you think water will flow on the map. Use a single lined arrow  to indicate slower flows and double-lined arrows to indicate faster flows. .**
- 5. Discuss the question with your team – How do you think the speed and direction of the water flow will affect the landscape in a storm?**

TEAM #5 – POLLUTANTS

- 1. Note the location of any trash cans within the study area and note location on your map.**
- 2. Search the ground in the study area for any sign of trash, oil or potential sources of fertilizer – and note type of pollutant and location on your map.**
- 3. Discuss the questions with your team – Do you think these pollutants will affect water quality in a storm? What do you think the pollutants are affecting anything now? Why were we asked to note the location of the garbage cans?**

TEAM #6 – FLOW SURFACES

- 1. Locate, delineate and label on the map any impermeable surface areas within the study area.**
- 2. Locate, delineate and label on the map any flower beds, natural or human made landscape zones, lawns or other permeable surface areas within the study area.**
- 3. Estimate the percentage of the study area covered by impermeable and permeable surfaces.**
- 4. Discuss the question with your team – How do you think these surfaces will affect the water flow in a storm?**