Plan: How can I help prepare students and myself for a great day of learning?

The **Sustaining Water Systems** program is designed to enrich and expand the Grade 8 classroom STEM* program by bringing the Ontario Science, Technology and Math curriculum to life through a hands-on, learning experience at Forest Valley Outdoor Education Centre.

*An integrated application of Science, Technology, Engineering and Mathematics

Curriculum Connections:

- Science and Technology, 1 - 8, Understanding Earth and Space Systems, Water Systems (p 149 - 151)
- Mathematics (pp. 12-13), Process Expectations (p. 110), Data Management and Probability (pp.118-119)

Some guiding questions to support effective field trip planning:

- Why did you choose **Sustaining Water Systems**?
- How does it integrate into your classroom program?
  - Is the field trip going to act as a "minds on" engagement where students formulate questions for inquiry?
  - Is the field trip an opportunity for students to gather evidence for an inquiry already in progress?
  - Is the field trip a culminating experience for students to apply their learning

Pre-Trip Experiences:

- Begin a Know, Wonder, Learn (KWL) chart about flooding in Toronto to bring with you to Forest Valley
- Compare photos of Hurricane Hazel in 1954 with the Toronto Floods 2013
- Determine what watershed your school is located in using Toronto Region Conservation Authority's interactive map and then explore the resources to gather and organize information about Toronto's relationship with the watersheds of the nine rivers that flow through our city
- Consult the TRCA's Issues and Challenges, then take a community walk to determine which issue best connects with your neighbourhood and begin planning an eco-action project in consultation with Eco Schools
- Consult Canadian Geographic's guide for protecting your local watershed
- Consider joining Trout Unlimited Yellowfish Road Campaign to make a difference in your neighbourhood
- explore news stories about the Don River: Funeral For the Don River, Overhaul of Don River mouth could spur Port Lands development, Why Does the Don River Flood So Often?
- Explicitly teach the Mathematical process (e.g. problem solving, reasoning and proving, reflecting, selecting tools and strategies, connecting, representing, communicating)
- Explore the various ways the Toronto Region Conservation Authority manages our floodplains
- Explore Nature Conservancy Floodplains By Design to see an animated demonstration of how river systems and human development interact
- Watch "How Wolves Change Rivers" to formulate questions about how river systems might impact other systems
- Introduce students to the 9 measurements the Environmental Protection Agency recommends taking to determine the health of a river system

TDSB Web Resources (note, these may only be accessible through a TDSB computer):

- MediaNet (Library & Learning Resources: Grade 8 Understanding Earth and Space Systems)
- TDSB's Virtual Library.