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

The **Survival** program is designed to enrich and expand the Grade 7 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:**

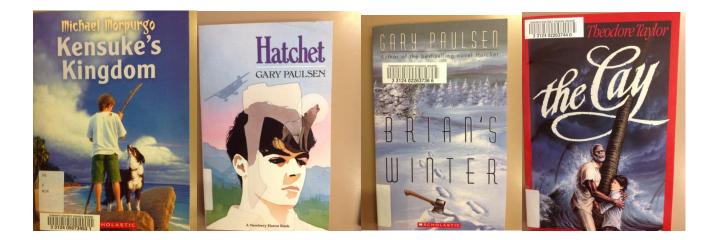
- <u>Science and Technology 1-8, Understanding Structures and Mechanisms, Form and Function (pp. 129-131),</u> <u>Understanding Earth and Space Systems, Heat in Environment (pp. 135-137)</u>
- Mathematics, Mathematical Process Expectations (p 98)

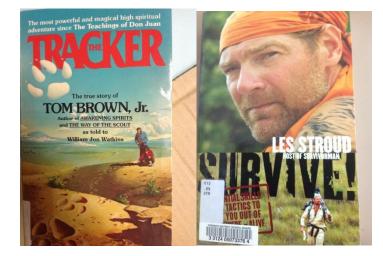
## Some guiding questions to support effective field trip planning:

- Why did you choose **Survival**?
- 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:

- Please divide the class into equitable groups of 4 or 5 and review our <u>What to Wear</u> guide
- Begin a Know, Wonder, Learn (KWL) chart based on what humans need to survive and bring with you to Forest Valley
- Make a comparison chart of human needs and human wants
- Relate the upcoming field trip to Understanding Structures and Mechanisms, Form and Function strand by exploring and investigating the various real-world engineering challenges (e.g. find the most efficient way to build a bridge that supports at least 4kg)
- Begin investigating heat loss and transfer challenges by testing various materials and then design and build a product that reduces heat loss
- Measure and collect data to inform decisions to develop and improve structures
- Explicitly teach the Mathematical process (e.g. problem solving, reasoning and proving, reflecting, selecting tools and strategies, connecting, representing, communicating)
- Guided or shared reading of a novel/biographical account of survival (To borrow books from Forest Valley's Library, please contact <a href="mailto:ForestValleyOutdoorEdCentre@tdsb.on.ca">ForestValleyOutdoorEdCentre@tdsb.on.ca</a>)





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

- <u>MediaNet</u> (Library & Learning Resources: Grade 7 Understanding Structures and Mechanisms)
- <u>MediaNet</u> (Library & Learning Resources: Grade 7 Understanding Earth and Space Systems)
- TDSB's Virtual Library.