CONSOLIDATION 1: ALL Science Inquiry

Purpose:
- To consolidate learning about the role of treating Acute Lymphoblastic Leukemia (ALL) using stem cells
- To clearly and creatively communicate information for an intended audience
- To connect learning in the classroom to the world outside the classroom

Overview:
Students will apply their knowledge of ALL and stem cell transplantation to the creation of a public service announcement (PSA) advocating that people should register for Canadian Blood Services' OneMatch Stem Cell and Marrow Network.

Suggested Timing:
- 30 minutes plus time outside of class to create presentation

Assessment Suggestions:
- Assessment of group PSAs
- Peer assessment of group PSAs

Prior Knowledge and Skills:
- It is expected that students will have completed the Action 1: ALL Science Inquiry lesson before doing this consolidation activity.
- Students will choose the presentation format they use; therefore, they should have some experience using their chosen format (e.g., poster, radio PSA, video PSA, etc.).

Materials:
- BLM C1: PSA Assignment and Rubric [.doc] [.pdf] – 1 per student

Instructions:
- Students will use the information they collected during the Action 1: ALL Science Inquiry lesson as well as information from the Canadian Blood Services' OneMatch Stem Cell and Marrow Network website to demonstrate their understanding of ALL, stem cell transplantation and the need for stem cell donors through the creation of a public service announcement (PSA) for OneMatch. Students will work in small groups to complete the assignment.
- Discuss what makes a PSA unique and have the students talk about PSAs that they remember. If you wish, you could show the class video PSAs from one of the sites in the Additional Information section below.
- Have the students brainstorm what makes a good PSA. This could include things like, a good PSA...
  - Is relevant to the audience
  - Is interesting or entertaining
  - Is simple
  - Has a clear message
  - Inspires action – requires a response such as a change in attitude or behaviour, participation in a cause, etc.
Each group of students should be allowed to choose a presentation format that suits their learning styles. In each case, students should decide as a group what format they wish to use. Suggested formats include:
- A 45 second audio-only PSA (such as would be played on the radio)
- A 45-60 second video PSA (such as would be played on TV or the internet)
- A Flash Animation
- A mock-up for a webpage
- An alternative format chosen by the students (which is approved by the teacher)

The rubric provided could be used for any of the formats.

Scaffolding:
If necessary, students could be provided with examples of these types of PSAs from OneMatch such as this hip hop music video done by Hip Hop Canada for OneMatch on YouTube.

In the Spread the Word section students can see an example of a TV advertisement, a Radio Advertisement and a Flash Animation. NOTE: These are examples only and should not be mimicked too closely by the students.

Each group will also need to decide together what audience they want to focus on – such as a specific ethnic group, age group (e.g., teens), regional group (e.g., people in a specific city or town), etc. Ideally, students should choose an audience with which they have some familiarity. More specific criteria can be found on the BLM C1: PSA Assignment and Rubric pages.

Students will need time outside of class to gather the information, review information on the OneMatch website, and prepare their PSA.

Upon completion of the PSAs, the student groups will share them with the class. During the presentations, the non-presenting students will assess the PSAs using the BLM C2: PSA Peer Assessment sheets. After all of the groups have shared, the class could discuss the PSAs using the categories on the BLM C2: PSA Peer Assessment sheets as a guide.

Connecting to Other Resources on CurioCity:
- Student videos could be submitted to www.explorecuriocity.org.
- Jeff, Blood Stem Cell Donor
  This video (2012, 3:27 min.) is narrated by Jeff, a university student in the United States who donated blood stem cells through the Be the Match® program (similar to Canada’s OneMatch program). He explains the process and why he participated.

Extensions:
- Have students revisit their first reactions to the Jiao’s Case (written at the bottom of the page) and reflect on how their feelings and ideas have or have not changed as a result of participating in the science inquiry and response.

Additional Information:
- Ethnic breakdown of the current potential stem cell donors in Canada (Accessed May 21, 2014)
  This PDF (from 2009) shows the breakdown of donors by ethnic group. Blacks (0.5%), multi-ethnic (0.3%) and South Asian (0.3%) are the least represented among donors.
- OneMatch FAQs (Accessed May 21, 2014)
  This page includes information about donation and campaigns to recruit more ethnic donors.
• **Stem Cell Drive This Weekend** (Accessed February 10, 2012)
  This article from the Toronto Sun first published on Friday, June 24, 2011, is about an annual drive coordinated by the Stem Cell Network to encourage Chinese Canadians to become bone marrow donors.