



Immunization

Curriculum Support/Health Resources
for Elementary & Secondary Schools

To ensure you are getting the most up to date version of this Immunization Curriculum Support Document, go to: <https://www.publichealthgreybruce.on.ca/Your-Health/Immunization/Schools-and-Child-Care>

Key Messages:

Immunization – Your Best Protection

Vaccines are recognized as one of the biggest success stories of modern medicine.¹ Between 2010-2015, at least 10 million deaths were prevented worldwide by vaccines, and many millions more lives were protected from illness.¹ Immunization has prevented more Canadian deaths in the last 50 years than any other health intervention.²

Grey Bruce has high immunization rates. It is important for our community health that these rates stay high, and continue to grow. It is important that children learn early about what immunizations are, and how they are beneficial to their overall health. This will better equip them to make decisions about their health in the future.

References:

1. World Health Organization. Available at: <https://www.who.int/publications/10-year-review/vaccines/en/> (accessed Feb.6/19).
2. Public Health Agency of Canada. Canadian Immunization Guide, Evergreen Edition. Ottawa: Public Health Agency of Canada. Available at: <https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-1-key-immunization-information/page-3-benefits-immunization.html> (accessed Feb.6/19).

Curriculum Resources:

Please see below for curriculum resources for [Grades JK-5](#), [Grades 6-8](#), and [Grades 9-12](#). Resources are also available for Parents' Councils (see [Additional Websites](#)) and expert level information for those interested in more detailed science-based information (see [Health Unit website](#)-information for professionals).

Grades JK-5:

1. **Vaccine Preventable Diseases & Vaccines:** What diseases can we prevent with vaccines? What is the history of vaccines? How do vaccines work in our bodies? How often did people get diseases before vaccines were invented, compared to after vaccines were invented? How do we make sure vaccines in Canada are safe?
 - a) Health Canada:
 - Vaccine Preventable Diseases: <https://www.canada.ca/en/public-health/services/immunization/vaccine-preventable-diseases.html>

Grey Bruce Health Unit

For more information, please contact Grey Bruce Health Unit at 1-800-263-3456 Monday to Friday 8:30 a.m. to 4:30 p.m.

publichealthgreybruce.on.ca

June 2019

- Infographic: Vaccines Work (disease incidence before/after):
<https://www.canada.ca/en/public-health/services/publications/healthy-living/vaccines-work-infographic.html>
 - b) The Vaccine Makers Project – where learning is infectious (American – includes lesson plans that can be adapted, and other resources)
 - <https://vaccinemakers.org/>
 - c) VaxPack Hero: (retro-style online computer game – defeat the germs with immunization facts!) – <http://vaxpackhero.com/>
 - d) Steps to Vaccine Safety in Canada (including infographic):
 - <https://www.canada.ca/en/public-health/services/publications/healthy-living/vaccine-safety-poster.html>
 - e) Canadian Paediatric Society – Caring for Kids:
 - Vaccines: <https://www.caringforkids.cps.ca/handouts/immunizations-index>
 - Vaccine Safety: https://www.caringforkids.cps.ca/handouts/vaccine_safety
 - f) ImmunizeBC:
 - Vaccine Preventable Diseases: <https://immunize.ca/diseases-vaccines>
 - How Vaccines Work: <https://immunizebc.ca/how-do-vaccines-work>
 - g) Ministry of Health Ontario – Vaccines: <https://www.ontario.ca/page/vaccines>
- 2. Reducing Pain of Injections:** What can we do to make getting needles easier? Has anyone researched that question? Does the same thing work for each different person?
- a) Researched Needle Pain and Distress Strategies:
 - Video: <https://www.youtube.com/watch?v=1CWfBg1Ylo8>
 - <http://www.sickkids.ca/Learning/Stories/Knowledge-Translation/anna-taddio.html>
 - b) Information and Online Activities: <https://youth.anxietycanada.com/facing-fears>
 - c) Where to put numbing cream: <https://www.publichealthgreybruce.on.ca/Your-Health/Immunization/Comfort-Measures>
- 3. Learning how to find credible information on the internet:**
- a) The CRAPP (Currency, Relevance, Authority, Accuracy, Purpose) Checklist
<https://kidsboostimmunity.com/node/1241/>
 - b) Canadian Paediatric Society:
https://www.caringforkids.cps.ca/handouts/immunization_information_on_the_internet
 - c) Immunization Information on the Internet: Can you trust what you read? (more detailed checklist with descriptions/rationale for each point)
https://immunize.ca/sites/default/files/resources/imm_info_internet_2017_e.pdf

4. Travel:

- a) Have students ever wanted to travel somewhere? Consider doing a virtual “explore the world” activity. Are there safety issues to think about and plan for? Are there any disease issues that should be considered when planning to travel to that country? What immunizations are required and/or recommended for travel to that country? How are safety considerations, disease precautions and immunization requirements and/or recommendations different from country to country? Visit: <https://travel.gc.ca/travelling/advisories>, enter your destination, and read about things like ‘safety and security,’ ‘entry/exit requirements,’ ‘health’ (including vaccines needed and/or recommended), ‘laws and culture,’ and ‘natural disasters and climate.’

Grades 6-8:

1. Kids Boost Immunity (KBI):

KBI is a Canadian web-based curriculum support that is **free for teachers**. KBI provides a unique and tailored interactive classroom experience that is carefully curated to follow the school curriculum. In particular, the focus is on meeting the learning standards of the grades 6-10 curriculum in relation to **science, geography, and social studies**. Topics covered include:

- The immune system
- Disease transmission
- Immunization
 - Pandemics, epidemics, and outbreaks
 - Global inequality issues in health
 - The role of NGOs
 - Antibiotic resistance
- Evaluating sources
- And many more!

In Ontario, the curriculum link for Kids Boost Immunity (KBI) is: Grade 6 Social Studies (p.6-7), Grade 7/8 Health/PE and Science (p.8-12), and Grade 8 Geography (p.13-14), and Grade 10 Science.

Learning outcomes are assessed through team and individual leaderboards that track student achievement. For every quiz completed, KBI donates life-saving vaccines to UNICEF Canada. With this unique reward, students are able to personally relate their classroom learning within the greater global context. By “earning” real vaccines, KBI gives the opportunity to empower students with a global, life-saving accomplishment.

Read more about how KBI works here: <https://kidsboostimmunity.com/how-it-works>

See sample lesson plans here: <https://kidsboostimmunity.com/sample-lessons>

2. **Immunize.ca: Integrating immunization education into the Grade 6 curriculum:**

Every other year, Immunize Canada organizes a National Immunization Poster Contest. This contest provides Grade 6 students across Canada with an opportunity to submit creative works reflecting their ideas on immunization for good health. The winning posters are reproduced and distributed in many formats. The kit provides teachers with resources and ideas organized by curriculum subject matter that may be used for preparing Grade 6 students for their poster contest entries. The kit can be used independent of the poster contest as well, and is available at:

[https://immunize.ca/sites/default/files/Resource%20and%20Product%20Uploads%20\(PDFs\)/Campaigns/Poster%20Contest/2018/teachers_kit_2018_e.pdf](https://immunize.ca/sites/default/files/Resource%20and%20Product%20Uploads%20(PDFs)/Campaigns/Poster%20Contest/2018/teachers_kit_2018_e.pdf)

3. **Other Resources:**

a) Learning how to find credible information on the internet:

- Immunization Information on the Internet: Can you trust what you read? (checklist is also applicable to topics other than immunizations)

https://immunize.ca/sites/default/files/resources/imm_info_internet_2017_e.pdf

- World Health Organization – examples of credible information

https://www.who.int/vaccine_safety/initiative/communication/network/approved_vaccine_safety_website/en/

b) Vaccine Preventable Diseases & Vaccines: What diseases can we prevent with vaccines?

What is the history of vaccines? How do vaccines work in our bodies? How often did people get diseases before vaccines were invented, compared to after vaccines were invented? How do we make sure vaccines in Canada are safe?

- Health Canada:

- Vaccine Preventable Diseases: <https://www.canada.ca/en/public-health/services/immunization/vaccine-preventable-diseases.html>

- Infographic: Vaccines Work (disease incidence before/after): <https://www.canada.ca/en/public-health/services/publications/healthy-living/vaccines-work-infographic.html>

- The Vaccine Makers Project – where learning is infectious (American – includes lesson plans that can be adapted, and other resources)

- <https://vaccinemakers.org/>

- VaxPack Hero: (retro-style online computer game – defeat the germs with immunization facts!) – <http://vaxpackhero.com/>

- Steps to Vaccine Safety in Canada (including infographic):

- <https://www.canada.ca/en/public-health/services/publications/healthy-living/vaccine-safety-poster.html>

- Canadian Paediatric Society – Caring for Kids: Vaccines

- <https://www.caringforkids.cps.ca/handouts/immunizations-index>

- Vaccine Safety: https://www.caringforkids.cps.ca/handouts/vaccine_safety
 - ImmunizeBC:
 - Vaccine Preventable Diseases: <https://immunize.ca/diseases-vaccines>
 - How Vaccines Work: <https://immunizebc.ca/how-do-vaccines-work>
 - Herd/Community Immunity Video (how community protection is achieved): <https://www.theguardian.com/society/ng-interactive/2015/feb/05/-sp-watch-how-measles-outbreak-spreads-when-kids-get-vaccinated>
 - Ministry of Health Ontario – Vaccines: <https://www.ontario.ca/page/vaccines>
- c) Reducing Pain of Injections: What can we do to make getting needles easier? Has anyone researched that question? What else can we do to help decrease needle fears/anxiety? Does the same thing work for each different person?
- Researched Needle Pain and Distress Strategies:
 - Video: <https://www.youtube.com/watch?v=1CWfBg1Ylo8>
 - <http://www.sickkids.ca/Learning/Stories/Knowledge-Translation/anna-taddio.html>
 - Information and Online Activities: <https://youth.anxietycanada.com/facing-fears>
 - Where to put numbing cream: <https://www.publichealthgreybruce.on.ca/Your-Health/Immunization/Comfort-Measures>
- d) Vaccine Laws: Why do we need a law requiring immunizations? Why do some people avoid immunization? Who does this affect? What might be the consequences of avoiding immunization?
- Immunization of School Pupils Act (ISPA) Summary for Grey Bruce: Who can consent for immunizations? <https://www.publichealthgreybruce.on.ca/Your-Health/Immunization/Schools-and-Child-Care>
 - When parents choose not to vaccinate: Risks and Responsibilities [https://www.caringforkids.cps.ca/uploads/handout_images/CFK_tearsheet-ENG\(post\).pdf](https://www.caringforkids.cps.ca/uploads/handout_images/CFK_tearsheet-ENG(post).pdf)

Grades 9-12:

1. Healthy Choices – Vaccines:

- a) Human Papillomavirus (HPV):
- Get the facts, get the HPV vaccine – a video about a young woman who has cervical cancer and her recommendation that people get the HPV vaccine <http://www.euro.who.int/en/health-topics/disease-prevention/vaccines-and-immunization/video-gallery>

- Public Health HPV/HPV Vaccine Fact Sheet:
<https://www.publichealthgreybruce.on.ca/Portals/0/Topics/Immunization/DayNurses/HPV%20Fact%20Sheet.pdf?ver=2018-11-08-143906-257>
 - Society of Obstetricians and Gynaecologists of Canada (SOGC) – HPV information and prevention website – <http://hpvinfo.ca/prevention/>
 - ‘Apps and Games’ section of the SOGC HPV website: <http://hpvinfo.ca/learn-explore/#appsandgames>
- b) Hepatitis B:
- <https://www.publichealthgreybruce.on.ca/Portals/0/Topics/Immunization/DayNurses/Hep%20B%20Fact%20Sheet.pdf?ver=2018-11-08-143632-130>
- c) Tdap (tetanus/diphtheria/pertussis):
- http://www.health.gov.on.ca/en/public/programs/immunization/docs/tdap_fs_en.pdf
- d) Immunizations before and during pregnancy:
- <https://www.pregnancyinfo.ca/before-you-conceive/your-health-prior-to-pregnancy/vaccinations/> (Society of Obstetricians and Gynecologists of Canada)
- 2. Vaccine Preventable Diseases & Vaccines:** What diseases can we prevent with vaccines? What is the history of vaccines? How do vaccines work in our bodies? How often did people get diseases before vaccines were invented, compared to after vaccines were invented? How do we make sure vaccines in Canada are safe?
- a) Health Canada:
- Vaccine Preventable Diseases: <https://www.canada.ca/en/public-health/services/immunization/vaccine-preventable-diseases.html>
 - Infographic: Vaccines Work (disease incidence before/after) - <https://www.canada.ca/en/public-health/services/publications/healthy-living/vaccines-work-infographic.html>
 - Steps to Vaccine Safety in Canada (including infographic): <https://www.canada.ca/en/public-health/services/publications/healthy-living/vaccine-safety-poster.html>
- b) Canadian Paediatric Society – Caring for Kids:
- Vaccines: <https://www.caringforkids.cps.ca/handouts/immunizations-index>
 - Vaccine Safety: https://www.caringforkids.cps.ca/handouts/vaccine_safety
- c) ImmunizeBC:
- Vaccine Preventable Diseases: <https://immunize.ca/diseases-vaccines>
 - How Vaccines Work: <https://immunizebc.ca/how-do-vaccines-work>
- d) Herd/Community Immunity Video (how community protection is achieved):

- <https://www.theguardian.com/society/ng-interactive/2015/feb/05/-sp-watch-how-measles-outbreak-spreads-when-kids-get-vaccinated>
- e) The Vaccine Makers Project – where learning is infectious (American – includes lesson plans that can be adapted, and other resources)
- <https://vaccinemakers.org/>
 - VaxPack Hero: (retro-style online computer game – defeat the germs with immunization facts!) – <http://vaxpackhero.com/>
- f) Ministry of Health Ontario:
- Vaccines: <https://www.ontario.ca/page/vaccines>

3. **Travel:**

Have students ever wanted to travel somewhere? Consider doing a virtual “explore the world” activity. Are there safety issues to think about and plan for? Are there disease issues that should be considered when planning to travel to that country? What immunizations are required and/or recommended? How are safety considerations, disease precautions and immunization requirements or recommendations different from country to country? Visit: <https://travel.gc.ca/travelling/advisories>, enter your destination, and read about things like ‘safety and security,’ ‘entry/exit requirements,’ ‘health’ (including vaccines needed and/or recommended), ‘laws and culture,’ and ‘natural disasters and climate.’

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- Video: <https://www.youtube.com/watch?v=1CWfBg1YIo8>
 - <http://www.sickkids.ca/Learning/Stories/Knowledge-Translation/anna-taddio.html>
- b) Information and Online Activities: <https://youth.anxietycanada.com/facing-fears>
- c) Where to put numbing cream: <https://www.publichealthgreybruce.on.ca/Your-Health/Immunization/Comfort-Measures>

5. **Learning how to find credible information on the internet:**

- a) Immunization Information on the Internet: Can you trust what you read? (checklist is also applicable to topics other than immunizations)
https://immunize.ca/sites/default/files/resources/imm_info_internet_2017_e.pdf
- b) World Health Organization – examples of credible information
https://www.who.int/vaccine_safety/initiative/communication/network/approved_vaccine_safety_website/en/

6. **Vaccine Laws:** “Why is a law requiring immunizations needed? Why do some people avoid immunization? Who does this affect? What might be the consequences of avoiding immunization?”
- a) Immunization of School Pupils Act (ISPA) Summary for Grey Bruce: Who can consent for immunizations? <https://www.publichealthgreybruce.on.ca/Your-Health/Immunization/Schools-and-Child-Care>
 - b) When parents choose not to vaccinate: Risks and Responsibilities [https://www.caringforkids.cps.ca/uploads/handout_images/CFK_tearsheet-ENG\(post\).pdf](https://www.caringforkids.cps.ca/uploads/handout_images/CFK_tearsheet-ENG(post).pdf)

Additional Websites:

These websites include information about vaccine preventable diseases, how vaccines work, vaccine safety, ingredients, vaccines for various age groups, etc.

- www.immunize.ca (Canadian content)
- <http://www.immunizeforgood.com/> (includes a helpful ‘Fact or Fiction’ section)
- <https://vaccinemakers.org/> (includes some lesson plans/classroom materials)
- <https://www.chop.edu/centers-programs/vaccine-education-center> (includes a section about vaccine history)
- <https://www.caringforkids.cps.ca/handouts/immunizations-index> (Canadian Paediatric Society)