

## Science Grades 11-12

### Daily Activities to Promote Scientific Literacy

Learning Activity	Time	Instructions	Considerations
Video Lessons- Binogi	15 to 20 minutes	Head over to <a href="http://www.binogi.ca">www.binogi.ca</a> to see Science lessons. Watch video lessons, compete in quizzes and earn points. Binogi's short videos are a fast way to learn in both English and French.	To use this resource, students will need to login. Registration is free for all until the end of June.  Binogi has multiple lessons in different Scientific strands and adds videos weekly!
Interactive Science Resource- Algodoo		Download this free software on your computer or tablet to manipulate the virtual world. This tool provides online resources and challenges that apply to the general math courses as well as the more in-depth physics courses.	<a href="http://www.algodoo.com/">http://www.algodoo.com/</a>
Innovative Problem Solving	30 minutes to an hour	Come up with a way to water a plant for 8 days without turning on any water source.	Students could draw plans, write procedures on how to build it, or they could actually build it. How would they modify it if they had access to any material possible?
Analyzing Graphs	15 to 30 minutes	Right now, in the news, there are many articles that include graphs and other data representations. Take some time to look at them carefully and talk about what they represent and how. Is there anything you notice or wonder about them?	Here are a few more Kids questions you might want to discuss: -What can you infer from this? -How does this relate to your life? -How does this make you want to know more about? -What are the questions you could ask to get that information? -What does the graph tell you that the rest of the article does not? -What headline would you write for this graph?  All sorts of news outlets have graphs on many other topics. This is a great place to start: <a href="https://www.nytimes.com/column/whats-going-on-in-this-graph">https://www.nytimes.com/column/whats-going-on-in-this-graph</a>
Video Library- Let's Talk Science		Visit Let's Talk Science-STEM Channel to watch short videos on a topic of choice. These short videos offer detailed information on a variety of topics.	Take some time to write down some fun and interesting facts that you may have learned. <a href="https://letstalkscience.ca/educational-resources/video-channels/stem-channel-all-videos">https://letstalkscience.ca/educational-resources/video-channels/stem-channel-all-videos</a>

Interactive Simulations-PhET	Explore a simulation a day	Visit <a href="https://phet.colorado.edu/en/simulations">https://phet.colorado.edu/en/simulations</a> to view interactive simulations on a variety of Science topics.	Use these interactive simulations to work through concepts that you may have already covered or to explore new ones. All PhET simulations are free and easy to use.
Learning Inside Out-Learning for a Sustainable Future	One activity a week	Visit <a href="http://lsf-1st.ca/en/projects/youth-taking-action/learning-inside-out">http://lsf-1st.ca/en/projects/youth-taking-action/learning-inside-out</a> for a weekly collection of different activities that have a special focus on learning outdoors. This resource has activities for all grade levels.	A new collection of activities will be added weekly and the theme will alternate between a focus on seasonal happenings and a focus on the United Nations Sustainable Development Goals.