

Service-Learning and STEM

Service-learning and STEM have multiple connections and similarities. Those include:

- The processes for STEM and service-learning are very similar.
- STEM curriculum encourages an investigative model, the Engineering Design Process, that is like the IPARDE (Investigate, Prepare, Action, Reflection, Demonstration, and Evaluation) model used to complete a service-learning project.
- By simply involving students in a service-learning project that employs the IPARDE process, students in ANY content area are engaged in STEM.

The <u>Learning to Give Website</u> has curriculum that links to science, technology, engineering, and math. Educators can search the website by content area, specific topic or skill, and Indiana Academic Standards.

Other similarities that Service-learning and STEM share are:

- Both focus on real-world problems
- are guided by a process
- immerse students in hands-on inquiry and open-ended exploration
- utilize productive teamwork
- apply rigorous content that students are learning
- allow for multiple correct answers, trials, and reflection.

The impact of service-learning is evident in student involvement in acts of philanthropy that develop more charitable attitudes, beliefs, and behaviors.

Students are also engaged in meaningful content, see themselves as leaders and change makers, practice civic involvement, and develop critical workplace and 21st century skills all while helping others.

To learn more about the connections to between Service-learning and STEM check out these **Spotlight on Service-Learning articles** found <u>HERE</u> located on the <u>INSPIRE3 page</u>.

- Marching Into Spring with Service-Learning
- Now Serving Health and Wellness
- Service-Learning STEMS from the Heart
- Spring Into Environmental Action!
- Water, Water Everywhere

This **PowerPoint presentation** with live links to related STEM resources is available on the <u>Digital Resources page</u> also located on the <u>INSPIRE3 page</u>.

- Service Learning for Science and STEM Educators K-12- Virtual Workshop PPT
- Service Learning and Interdisciplinary STEM
- Science STEM Grades K-5 Virtual Learning with Service Learning
- Science STEM Grades 6-12 Virtual Learning with Service Learning



Visit the INSPIRE³ page on the IASP website <u>HERE</u> and on the IMLEA website <u>here</u> for additional service-learning resources. ALL Spotlight on Service-Learning articles, written by Beth Smith, are archived on the <u>Spotlight on Service-Learning page</u>. Snapshots of Service-Learning from Indiana schools can be found here.

Explore the free resources on <u>Learning to Give</u> and <u>generationOn</u> **described below** to find service and service-learning lessons and resources, meaningful ways to serve others and give meaning to content, help students discover their passions, and help them develop empathy through incorporation of service-learning into the existing content.



Imagine a world where all youth are knowledgeable and equipped for lifelong engagement in philanthropy as givers of time, talent, and treasure for the common good. The Learning to Give website has <u>no cost</u> Philanthropy Education/Service-Learning Lessons and Resources that Teach Giving and Civic Engagement through Academics. LTG equips K-12 teachers with lessons and resources to educate students as philanthropists with knowledge, skills, and

action to make a better world. Connect students' civic lives to academic learning and service-learning. **Over 1700+ K-12 teacher created lesson plans** searchable by keyword, issue area, subject, grade level, theme, calendar event and academic standards. Add service to your calendar by aligning philanthropy lessons and service-learning projects to monthly events. Browse the **Issue Area pages** with related lessons and toolkits. No cost Educator Mini-Courses provide online professional training in philanthropy education and service-learning. www.learningtogive.org



The mission of **generationOn** is to inspire, equip, and mobilize youth to take action that changes the world and themselves through service. Educators, parents, community organizations, and youth themselves will find **free** resources needed to ignite the power and potential of young people to become leaders and problem solvers, successful students and active community members through service. **The generationOn website has <u>no cost</u> resources** for many audiences that include age-appropriate **issue area project ideas, instructions, how-to guides for K-12 youth,**

in addition to, service-learning resources, school and clubs programs, and online service and service-learning trackers for educators and teens. www.generationOn.org