

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



SDG 9 SELECTED RESOURCES



Early Childhood Care and Education

Multimedia Educational Resources

Title	Organization	Link	Description
Come Celebrate SDG 9 Innovation & Infrastructure With Ernie Earth & Eco Boys and Girls	SDSN Youth	https://ecoboysandgirlsunsdgs.com/2015/09/15/9/	Poster
Hamaika	Iñaki Martiarena Otxotorena	http://www.unescoetxea.org/base/berriak.php?id_atala=1&id_azpiat_ala=1&hizk=en&zer=orokorrean&nor=1510 http://www.unescoetxea.org/irudiak/ODS9_Hamaika_InakiMartiarena.jpg	Poster



Primary Education

Pedagogical Resources

Title	Organization	Link	Description
The Nepal Earthquake – April 2015	OXFAM Education	https://www.oxfam.org.uk/education/resources/nepal-crisis	This resource is designed to be delivered as an assembly about the impact of the earthquake on Nepal and how young people in the UK can respond to this event with suggestions on organizing a fundraising event.
Technology Justice Belief Circles	Practical Action	https://practicalaction.org/technology-justice-activities	This activity aims to help students to explore their own values and viewpoints and those of their classmates, towards Technology Justice.
Technology: What Are My Needs?	Practical Action	https://practicalaction.org/technology-needs-and-wants	This activity focuses on technology needs and wants.
Tools for A Sustainable School	NaDEET	http://www.nadeet.org/sites/default/files/2014_2_BT_Tools%20for%20Schools.pdf	This environmental auditing tool helps make your school sustainable, providing a foundation that will guide you in the right direction.

Ideas for Classroom Activities

Title	Organization	Link	Description
How to Do A Science Fair Project	NASA; Jet Propulsion Laboratory; California Institute of Technology	https://spaceplace.nasa.gov/sciencefair/en/	Topic ideas to undertake a science fair project.
Monsoon Proof Roof	Practical Action	https://practicalaction.org/upd8-monsoon-proof-roof	This activity is aimed to children aged 9-11 and focuses on the final part of the house, the roof. Children will investigate whether a local material, straw, is the best material to use or if a different material would be better; something which is an issue, not just in Bangladesh.

The Squashed Tomato Challenge	Practical Action	https://practicalaction.org/squashed-tomato-challenge-5	A fun hands-on and brains-on challenge suitable for KS2–5 students based on a real transportation problem facing farmers living on the mountains of Nepal.
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Multimedia Educational Resources

Title	Organization	Link	Description
A To Do List For The Planet - Goal 9 (Industry, Innovation And Infrastructure)	World's Largest Lesson	http://837eeb01e61b4f024aaa-cb0d0167c98dc1d3ae9dca62bc8a259d.r97.cf5.rackcdn.com//2016/06/A-To-Do-List-for-the-Planet_Page_10_Image_0001.jpg	This comic poster presents the meaning of industry, innovation and infrastructure.
Beat the Flood!	Practical Action	https://practicalaction.org/video-beat-the-flood	When you live in a flood-prone area having somewhere to live, which will survive a flood is important. Ortis Deley looks at how people in Bangladesh have considered the different properties of materials to determine which are the right ones for the job.
Marvellous Microbes!	Practical Action	https://practicalaction.org/video-marvellous-microbes	Microbes have an important role to play in making biogas, a good source of renewable energy. This video explains how microbes convert kitchen waste into biogas, and how the process improves the lives of people in Bangladesh.
Pump It Up!	Practical Action	https://practicalaction.org/video-pump-it	When you do not have clean water 'on tap' you need to pump it up from underground. This video, presented by Ortis Deley, explains the science behind how a water pump works and why it is important to the lives of people in Bangladesh.
Squashed Tomato Challenge – INTECH Science Centre	Practical Action	https://practicalaction.org/squashedtomatochallengeintec	Farmers in Nepal face a problem transporting tomatoes they grow down the mountain without squashing them. Students designed, of their solutions and had a lot of fun doing it.



Secondary Education

Pedagogical Resources

Title	Organization	Link	Description
ICTs: A Technological Fix?	Royal Geographical Society	https://www.rgs.org/schools/teaching-resources/icts-a-technological-fix/	This resource aims to prove that Information and Communication Technologies can reduce poverty with examples from Kenya.
Introduction To UNIDO - Inclusive And Sustainable Industrial Development	UNIDO	https://sustainabledevelopment.un.org/content/documents/2021Introduction%20to%20UNIDO-%20Inclusive%20and%20Sustainable%20Industrial%20Development.pdf	Inclusive and sustainable industrial development will be a key driver for the successful integration of the economic, social and environmental dimensions of sustainable development. UNIDO's work fully supports the ongoing post-2015 development agenda discussions.
Industrial Development Report 2018	UNIDO	https://www.unido.org/sites/default/files/files/2017-11/IDR2018_FULL%20REPORT.pdf	The Industrial Development Report 2018 adds a consumption dimension to the analysis of industrial development. This report reaffirms the commitment of UNIDO in supporting the achievement of inclusive and sustainable industrial development.
Industry, Innovation & Infrastructure: Why It Matters	The Global Goals	https://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/9_Why-it-Matters_Goal-9_Industry_1p.pdf	Technical Note presenting SDG 9, why we should care about this goal, what the problem is, what the price for inaction is, and how we can help.
Materials 4 A Sustainable Future	EU	http://www.materialsfuture.eu/media/220815/materials-future-education-resource-english.pdf	An education pack for students (age 14-17) promoting the importance of advanced materials in our everyday lives. Links with Science, Art and Design and Sustainability Studies.

Ideas for Classroom Activities

Title	Organization	Link	Description
Challenging Common Conceptions	World's Largest Lesson; Ellen MacArthur Foundation	http://cdn.worldslargestlesson.globalgoals.org/2016/07/1_Ellen-MacA_Challenging-Common-Conceptions.pdf	
Designing for A Circular Economy	World's Largest Lesson; Ellen MacArthur Foundation	http://cdn.worldslargestlesson.globalgoals.org/2016/07/4_Ellen-MacA_Designing-for-a-Circular-Economy.pdf	<p>This resource aims to:</p> <ul style="list-style-type: none"> • Learn about companies that have adopted the circular economy framework; • Design a product or service based on the circular economy.
Redesigning Plastic Packaging	World's Largest Lesson; Ellen MacArthur Foundation	http://cdn.worldslargestlesson.globalgoals.org/2017/08/Redesigning-plastic-packaging_final.pdf	<p>This resource aims to:</p> <ul style="list-style-type: none"> • Improve skills in communication and teamwork, problem solving, creativity, presenting and scientific inquiry; • Deepen awareness of the challenges around plastic packaging and how to overcome them by redesign.
The Circular Economy And Modern Agriculture	World's Largest Lesson; Ellen MacArthur Foundation	http://cdn.worldslargestlesson.globalgoals.org/2016/07/5_Ellen-MacA_Circular-Economy-and-Modern-Agriculture.pdf	<p>This resource aims to:</p> <ul style="list-style-type: none"> • To understand the challenges around conventional monocultures and soil quality; • To explore the importance of seeing the whole system when designing solutions.
Understanding Sustainable Living	World's Largest Lesson	http://cdn.worldslargestlesson.globalgoals.org/2016/06/Understanding-Sustainable-Living.pdf	<p>This resource aims to:</p> <ul style="list-style-type: none"> • Explain the concept of sustainability; • Evaluate lifestyle choices for sustainability using an online ecological footprint calculator to real-life data; • Identify actions students can take to make their lifestyle more sustainable.
Understanding The Challenge of Finite Resources	World's Largest Lesson; Ellen MacArthur Foundation	http://cdn.worldslargestlesson.globalgoals.org/2016/07/3_Ellen-MacA_Understanding-the-Challenge-of-Finite-Resources.pdf	<p>This resource aims to:</p> <ul style="list-style-type: none"> • Understand the urgent challenge that finite resources pose to our current economic system; • Explore economic history since the industrial revolution through personal narrative.

Multimedia Educational Resources

Title	Organization	Link	Description
Modern Living in Rural Areas	ValueWalk	https://www.valuewalk.com/2017/01/modern-living-rural-areas-infographic/	In this infographic we take a look at some of the problems facing people who live in rural areas and what is being done by companies, and the government, to help these communities become better connected.
Office Buildings That Are Saving the Planet	Eurooffice	https://www.proudgreenbuilding.com/news/infographic-office-buildings-that-are-saving-the-world/	To celebrate World Environment Day on June 5, the website Eurooffice put together an infographic below to celebrate some of the most environmentally friendly office buildings in use today.
SDG 9 – Industry, Innovation And Infrastructure	www.whatcanyoudo.earth	www.whatcanyoudo.earth https://www.youtube.com/watch?v=d4Ug1wo1uto	This video presents the need for citizenship to engage in efforts to promote industry, innovation and infrastructure.
The Story of Stuff	Tides Foundation; Funders Workgroup for Sustainable Production and Consumption	https://storyofstuff.org/movies/story-of-stuff/	The Story of Stuff, originally released in December 2007, is a 20-minute; fast-paced, fact-filled look at the underside of our production and consumption patterns. It exposes the connections between a huge number of environmental and social issues.