

FORMAT		
1. Name of resource	Energy Literacy: Essential Principles for Energy Education	
2. Location	https://www.energy.gov/energysaver/energy-literacy-essential-principles-energy-education	
3. Alternative location		
4. Author[s]	Energy Saver	
5. Publisher/producer/host	Energy Saver	
6. Year	2017	
7. Suggested citation	Energy Saver (2017), Energy Literacy: Essential Principles for Energy Education, https://www.energy.gov/energysaver/energy-literacy-essential-principles-energy-education	
8. Languages in which available	English, Spanish [PDF] (web pages translate automatically)	
9. Geographic area resource relates to	US with wider relevance	
10. Does the resource relate to a specific time frame?		
11. Type	Report	
	Toolkit/Framework/Roadmap	Yes
	Sign-post to other resource (database)	Yes
	Case studies	Yes
	Other	Links to educational resources, videos
12. Part of an initiative?		
COLLECTIONS AND COLLECTIONS-BASED INSTITUTIONS		
13. Explicit links to collections	No	
14. Explicit links to museums/libraries/archives	Yes	
15. Types of institutions relevant to	Museums	X
	Archives	X
	Libraries	X
	Other	X
16. Does the resource relate to specific disciplines?	Arts, humanities and social sciences: philosophy, psychology, religion, social sciences, law, politics, language,	X

	arts and recreation, architecture, literature, history, geography and ethnology, anthropology, archaeology	
	Science, natural history, technology, medicine, engineering, manufacturing	X
17. If no explicit links to collections, justification for inclusion	The principles can be applied to collections-based institutions, in terms of how they develop their education and participation programmes, and their climate actions more broadly.	
HOW IT CONTRIBUTES TO SUSTAINABLE DEVELOPMENT		
18. Collections-related activities the resource relates to (mark all that apply)		
Develop collections to protect and safeguard wider cultural and natural heritage more effectively , for example by targeting collecting to threatened forms of heritage in strategic ways		
Use collections to promote learning and educational opportunities that contribute to sustainable development more effectively , for example education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development and/or skills development relating to collections		X
Use collections to promote cultural participation/social inclusion more effectively , for example by reducing barriers to participation, to ensure no-one is 'left behind'		
Use collections to promote sustainable tourism more effectively , for example by developing new products based on local cultural heritage, and/or considering the rights of stakeholder groups in relation to collections		
Use collections to support research that contributes to sustainable development (including all forms of personal and self-directed research at all levels that make use of stored collections) more effectively, for example by providing effective facilities, collections and information to meet researchers' needs		
Make decisions around collections that contribute to sustainable development more effectively		
i. employment (recruiting, staff training, staff safety)		X
ii. energy consumption, greenhouse gas emissions, reduction, monitoring and reporting		X
iii. waste management and reduction of waste		X
iv. transport (forms of transport, energy use)		
v. commercial activities including copyright and IP		
vi. governance and management		

vii. security, disaster preparedness and risk reduction	
Direct external leadership, partnerships and collaborations towards sustainable development more effectively , for example by developing impactful partnerships	X
19. Does the resource relate clearly to any international conventions (mark all that apply)?	
Culture conventions:	
1952, 71 Protection of Copyright and Neighbouring Rights	
1954 Protection of Cultural Property in the Event of Armed Conflict	
1970 Fighting Against the Illicit Trafficking of Cultural Property	
1972 Protection of the World Cultural and Natural Heritage	
2001 Protection of the Underwater Cultural Heritage	
2003 Safeguarding of the Intangible Cultural Heritage	
2005 Protection and Promotion of the Diversity of Cultural Expressions	
Rio Conventions:	
Convention on Biological Diversity (CBD), Convention to Combat Desertification (UNCCD), Framework Convention on Climate Change (UNFCCC)	X
AIMS AND CONTENT	
20. What issues does the resource aim to address?	<p>“WHAT IS ENERGY LITERACY? Energy Literacy is an understanding of the nature and role of energy in the world and daily lives accompanied by the ability to apply this understanding to answer questions and solve problems.</p> <p>An energy-literate person: Can trace energy flows and think in terms of energy systems. Knows how much energy they use, for what purpose, and where the energy comes from. Can assess the credibility of information about energy. Can communicate about energy and energy use in meaningful ways. Is able to make informed energy use decisions based on an understanding of impacts and consequences.</p> <p>WHAT IS THE ENERGY LITERACY FRAMEWORK? Image Energy Literacy Energy Literacy: Essential Principles and Fundamental Concepts for Energy Education is an interdisciplinary approach to teaching and learning about energy. The framework identifies seven Essential Principles and a set of Fundamental Concepts to support each principle. The guide does not seek to identify all areas of energy understanding, but rather to focus on those that are</p>

	<p>essential for all citizens K-Gray. It presents energy concepts that, if understood and applied, will help individuals and communities make informed energy decisions...</p> <p>HOW SHOULD WE APPROACH ENERGY LITERACY? Energy Literacy looks at energy through the lens of natural science as well as social science. Energy issues require an understanding of civics, history, economics, sociology, psychology, and politics in addition to science, technology, engineering and mathematics. A comprehensive study of energy and curriculum designed using Energy Literacy should be interdisciplinary and use a systems-based approach to fully appreciate the complexities of energy issues.”</p>
21. Intended audience of resource	“The intended audience for the Energy Literacy document is anyone involved in energy education. Intended use of the document as a guide includes, but is not limited to, formal and informal energy education, standards development, curriculum design, assessment development, and educator trainings.”
22. Process of development	“The Energy Literacy document is the culmination of public listening sessions and thousands of experts from diverse fields of study contributing to a dialogue about what an energy literate person should know and understand. This included over 20 recognized educational partners and 13 federal agencies that comprise the U.S. Global Change Research Program Partner agencies.”
23. Organisation/structure /contents	[Web page] What is energy literacy? What is the energy literacy framework? Who led the development of the energy literacy document? How should we approach energy literacy? Who is the audience for the framework? Energy literacy framework resources
FRAMEWORKS	
24. Framework structure	Energy literacy is set out as a framework (see the resource for further information): <ul style="list-style-type: none"> • Energy is a physical quantity that follows precise natural laws. • Physical processes on Earth are the result of energy flow through the Earth system. • Biological processes depend on energy flow through the Earth system.

	<ul style="list-style-type: none"> • Various sources of energy can be used to power human activities, and often this energy must be transferred from source to destination. • Energy decisions are influenced by economic, political, environmental, and social factors. • The amount of energy used by human society depends on many factors. • The quality of life of individuals and societies is affected by energy choices <p>A set out intended outcomes are also set out as a framework: An energy-literate person:</p> <ul style="list-style-type: none"> · can trace energy flows and think in terms of energy systems · knows how much energy he or she uses, for what, and where that energy comes from · can assess the credibility of information about energy · can communicate about energy and energy use in meaningful ways · is able to make informed energy and energy use decisions based on an understanding of impacts and consequences · continues to learn about energy throughout his or her life.
25. Relevant policy considerations	Yes
26. Resources for implementation identified	Yes
27. Specific assessment points/indicators/milestones/action plan for monitoring	Yes
28. ASPECTS OF SUSTAINABILITY COVERED BY RESOURCE (mark all that apply)	
People (social sustainability)	X
Planet (environmental sustainability)	X
Prosperity (economic sustainability)	X
Peace	
Partnerships	
29. CROSS-CUTTING CONSIDERATIONS COVERED BY RESOURCE (mark all that apply)	
Gender perspectives	
North and South perspectives	

HOW THE RESOURCE CONTRIBUTES TO AGENDA 2030 AND THE SDGs	
HOW AGENDA 2030 AND THE SDGs FEATURE IN THE RESOURCE	
30. SDGs and Agenda 2030 specifically mentioned?	No
31. SDGs specifically mentioned?	No
32. SDG targets specifically mentioned?	No
33. SDG indicators specifically mentioned?	No
SDGs AND SDG TARGETS AND LINKAGES	
34. Comments on SDG linkages	Working to support the Principles contributes to a wide range of SDG targets, including: 4.4 (skills for work), 4.7 (Education for Sustainable Development), 7.2 (adopting renewable energy sources), 7.3 (energy efficiency), 12.8 (education for sustainable lifestyles), 13.1 (climate adaptation), 13.3 (climate education and institutional capacity) and 13.B (climate action for Global South countries).
35. SDGs and SDG targets the resource helps advance	
SDG 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	<p>Number of young people and adults in skills-development activities and programmes drawing on collections, for employment, decent jobs and entrepreneurship</p> <p>Increase in number of young people and adults in such programmes</p> <p>Number and proportion of staff who have received training in the last year, to better support their contribution to the SDGs.</p> <p>Programs and processes in place to ensure the availability of a skilled workforce.</p>
SDG 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all 4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable	<p>Numbers of people in each type of programme drawing on collections from different demographic groups.</p> <p>Increases in numbers of people in each type of programme from different demographic groups.</p> <p>Proportion of people involved in such programmes in relation to overall audience size.</p> <p>Evidence that learners have acquired knowledge and skills to promote sustainable development.</p>

lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	
SDG 7. Ensure access to affordable, reliable, sustainable and modern energy for all 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	Proportion of energy that comes from renewable sources. Date to achieve net zero, and milestones towards that date.
SDG 7. Ensure access to affordable, reliable, sustainable and modern energy for all 7.3 By 2030, double the global rate of improvement in energy efficiency	Reduction in energy use. Upgrade of old equipment to more efficient equipment. Uptake of renewable sources of energy.
SDG 12 Ensure sustainable consumption and production patterns 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature	<i>12.8.1 Extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment</i> Extent to which global citizenship education and education for sustainable development (including climate change education) are mainstreamed in formal, informal and non-formal education programmes and activities drawing on and related to collections.
SDG 13. Take urgent action to combat climate change and its impacts 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	Plans in place for near and longer term to withstand and actively adapt to climate-related hazards and natural disasters.
SDG 13. Take urgent action to combat climate change and its impacts 13.3 Improve education, awareness-raising and human and institutional capacity on	Plans in place to enhance positive contributions to addressing climate change through use of collections. Plans in place to ensure collections, collections institutions and broader society can adapt effectively to climate change.

climate change mitigation, adaptation, impact reduction and early warning		<p>Plans in place for effective education and awareness raising on climate change mitigation, adaptation, impact reduction and early warning.</p> <p>Plans in place to reduce negative contributions of collections-related functions, e.g. measuring greenhouse emissions with plans and targets in place to reduce them.</p>			
<p>SDG 13. Take urgent action to combat climate change and its impacts</p> <p>13.B Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.</p>		<p>Number of initiatives (educational, awareness-raising, research, and/or partnerships) drawing on collections and collections-based institutions that build capacity for climate change planning and management in least developed countries and small island developing States.</p> <p>Number of targeted initiatives drawing on collections and collections-based institutions aimed at building capacity for women, youth and local and marginalized communities in least developed countries and small island developing States.</p>			
1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	