

Annex V – Output 1: Review of 100 free online teaching resources (listed by theme: bioeconomy, circular economy & SDGs)

No	Title online teaching resource	Web link (and reference if applicable)	Main theme	Type online resource (e.g. video, quiz, game)	Author and year	Summary and review in terms of interest, clarity, fun, content	Key target audience	Time to read or do	Level of difficulty or complexity	Language	Ideas for use in classroom
1	A Sustainable Bioeconomy for Europe	https://ec.europa.eu/research/bioeconomy/pdf/ec_bioeconomy_strategy_2018.pdf	Bioeconomy	PDF report available online	European Commission 2018	This updated Bioeconomy Strategy builds on the 2012 Strategy. It proposes actions to scale-up the bioeconomy to create growth and job opportunities at local level, reinforce the bio-based sector and contribute to the modernisation of EU industry, protect the environment and enhance ecosystems' functions and biodiversity. Important report as it provides the EU views on sustainable bioeconomy and includes action plan.	secondary school teachers, university lecturers, university students, business & industry, government, NGOs	2 hours	Intermediate Advanced	English	Discussion of key issues in class.
2	Bio...what? The Bioeconomy game	https://www.fvawe.be.eu/biowhat/	Bioeconomy	Interactive educational online game.	BIOWAYS & BioStep 2019	Educational online game that reveals information on various bio-products in relation to the Bioeconomy. Students can move a small character to a resource and then pair it to a bio-product that can be made from the resource. Information on the bio-product and how it is made is then shown. Very engaging and well designed. The educational element is easy to understand and informative. The game can be shared on Facebook where students can upload their scores and get competitive with each other. The resource stimulates curiosity and delivers information on bio-products. The quiz throughout the game makes it a good learning resource.	primary school pupils, secondary school pupils	5 - 10 minutes	Beginner	English Estonian Greek Portuguese Slovakian Spanish	Students could play on their own or in groups, or teacher could display game to the whole class, for students to try and pair resources to their bio-products.
3	Biobased Products for a Sustainable Bioeconomy	https://www.edx.org/course/biobased-products-for-a-sustainable-bioeconomy	Bioeconomy	Online teaching course with videos, interactive assignments and quizzes to help evaluate the progress of the user	edX, DELFT University of Technology 2020	An introduction to the world of biobased products and processes using biobased resources, including biobased feedstock, sustainability aspects, links to climate change, and how to design a biobased product ready to be brought into the market. Great interactive online teaching resource with real life examples on how these products are created and commercialised into the global market.	primary school teachers, secondary school teachers, university students, university lecturers, business &	5–6 hours per week, over 10 weeks	Intermediate Advanced	English	A full online course, 5–6 hours per week, over 10 weeks. <i>Free course but course completion certificate</i>

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						Quizzes are a good ways to keep people engage to the course.	industry, NGOs				costs around €46.
4	Bioeconomy in everyday life	https://www.bioval.e.org/wp-content/uploads/2015/11/Bioeconomy-in-everyday-life-2015.pdf	Bioeconomy	PDF report - formatted like a shopping catalogue, giving a mini case study on the material and its relevance to bioeconomy on each page.	European Commission 2015	Report explains and creates awareness how bioeconomy can impact upon our daily lives, using different examples of everyday products (e.g. from conditioner to trainers) and explains how these items can be made using renewable biodegradable materials. Informative, interesting, and compact resource about the bioeconomy. Helpful that legend at the bottom of each page scores each product based upon their performance (e.g. cost-efficiency, innovation, and fossil fuel reduction).	secondary school pupils, university students, business & industry, NGOs	1.5 hours	Beginner	English	Different pages detailing different bio-based products could be passed around to show students the potential applications.
5	Bioenergy Basics 101 Game	https://www1.eere.energy.gov/bioenergy/basics101/game.html	Bioeconomy	Online game	Department of Energy's Bioenergy Technology Office (USA) 2012	Game with questions regarding bioeconomy and biofuel production, uses and benefits. It can be played alone or in teams. The game is amusing and intellectually stimulating. A competition against each other, like jeopardy, would make it more fun. Game good for making you think about what you know. The levels differ from beginner to intermediate so works well for a range of knowledge.	secondary school pupils, university students	20-30 minutes	Beginner Intermediate	English	Would work great in a class, keeping people engaged and having fun while they learn.
6	BioStep - Products	http://products.bio-step.eu/	Bioeconomy	Online quiz and a short database with some bioproducts in homes.	BioStep 2018	Website which includes a short slideshow with examples of possible bioproducts we can find at home, and an interactive short quiz which evaluates knowledge of bioproducts, their resources and their potential. Explanations and examples are provided in the answers to the quiz.	primary school pupils, secondary school pupils	20 minutes	Beginner Intermediate	English	Slideshow;. Ask students to provide examples of bioproducts they know; Do quiz.
7	BLOOM Bioeconomy	https://bloom-bioeconomy.eu Cossu, C. (2019): An innovative vision of the Bioeconomy problems in the class: The BLOOM Project.	Bioeconomy	Web page with a variety of resources: webinars, videos, MOOC, and online quiz https://bloom-bioeconomy.eu/repository/bl	BLOOM (project funded by the EU Horizon 2020, running since 2017) 2018	BLOOM aims to spread awareness of strategies for creating bioeconomies in Europe with a large focus on education within schools with online resources and physical workshops. Trialled new teaching resources in classrooms in different curricular subjects, e.g. maths, engineering and science. Twitter feed regularly updated with links to articles and	secondary school pupils, university students, secondary school teachers, university lecturers	Varies with each resource.	Intermediate	English (video captions in many languages including Bulgarian, Latvian, Macedonian)	Presentation on the bioeconomy and different bioproducts. Showing videos. Quiz to test students' knowledge

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		Geophysical Research Abstracts, 21: 1-11		oom-bioeconomy-quiz/		information about bioeconomies. YouTube page with teaching videos describing bioproducts. MOOC on "Boosting bioeconomy knowledge in schools". Multiple-choice online quiz to be answered within a time limit, user gaining a score at the end.				, Polish and Romanian)	and ensure key concepts were understood.
8	Educational Resources: Bioenergy in the Classroom	https://www.energy.gov/eere/bioenergy/educational-resources-bioenergy-classroom	Bioeconomy	Web page with a variety of resources (videos, exercises, etc)	Office of Energy Efficiency & Renewable Energy, US Department of Energy, 2020	Wide range of educational resources related to bioenergy. A wide of resources well organised. It is possible to search by student level and by topic (e.g. Bioenergy, Renewables, Energy Efficiency, Biofuels, Science Education, Alternative Fuel Vehicles, Fuel Economy, Hydrogen, Solar, Wind, Clean Cities, Consumption, Energy Economy, Energy Usage, Geothermal)	primary school pupils, secondary school pupils, primary school teachers, secondary school teachers	Depends of activity	Beginner Intermediate	English	Resources ready to be used in classroom.
9	EFFAT Bioeconomy Workshop	https://bioeconomy.effat.org EFFAT (2017): The bioeconomy and a future biobased food industry and agriculture sector. Brussels: EFFAT	Bioeconomy	Video and report	European Federation of Food, Agriculture and Tourism Trade Unions (EFFAT) 2018	Short video summarising EFFAT report on the EU bioeconomy and how to shape its future. Video describes importance of biorefineries and biomass production to the EU economy & pinpoints areas for future opportunity. The video is snappy, engaging & interesting, and report gives a in-depth explanation. In the report, a few 'National Focus' countries are selected, and case studies show how some bioenergy/biomass-based companies operate within these countries.	secondary school pupils, university students	2 minutes (video); 2 hours (report)	Intermediate Advanced	English	Can be used at start of a lesson to initiate a discussion on what students think the bioeconomy is.
10	Energy from floating algae pods	https://www.ted.com/talks/jonathan_trent_energy_from_floating_algae_pods/ Trent, J. (2012): Grow Your Own Energy, New Scientist, September 3.	Bioeconomy	Video from TEDtalk (TEDGlobal)	Jonathan Trent, TEDtalk 2012	Video on the use of micro-algae to produce biofuels. Author invented Offshore Membrane Enclosures for Growing Algae (OMEGA) project. OMEGA created to grow micro-algae in floating offshore pods, feed by wastewater from cities. Presentation covers how floating structure works, its impact on environments and further developments (e.g. link with wind energy). Video relevant to anyone interested in biofuels, nanotechnology and wastewater treatment. Video is excellent and easy to understand with interesting animations.	secondary school pupils, secondary school teachers, university students, university lecturers, business & industry	14 minutes and 21 seconds	Intermediate Advanced	English but 17 languages available in subtitles (Including Bulgarian, French Polish, Romanian, Russian)	Students to discuss what they learned from this video. Assign tasks in groups. Ask questions, e.g. how can microalgae be used for wastewater treatment?

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11	Forest based Bioeconomy in Finland	https://www.bioeconomy.fi/video-forest-based-bioeconomy-in-finland/	Bioeconomy	Video	Bioeconomy.fi (Finland) 2014	About the bioeconomy in Finland and with interesting examples of how Finland has used their vast amounts of forest land to develop sustainable alternatives to commonly used products. Good that shows a wide range of uses and innovations that can be made using a bioeconomy system. Video concise, informative and visually interesting.	secondary school pupils, university students, business & industry	1 minute and 43 seconds	Beginner Intermediate	English	Develop Ideas from video, e.g. how viscose replaces cotton & cellulose fibre replaces plastics.
12	Quiz #1 - Are you ready for the bioeconomy?	http://www.allthings.bio/quiz/are-you-ready-for-the-bioeconomy/	Bioeconomy	Quiz	AllThings.Bio 2018	Interactive quiz with six questions about the bioeconomy. User can see if answer is right or wrong right away and explanation is provided, plus explore every question's concept by clicking on "Learn more about this" link, redirecting users to other sites with in-depth information. Quiz is entertaining and informative. Questions ranges from simple ones to those which require a bit more background, so relevant to different target audiences.	primary school pupils, secondary school pupils, university students, primary school teachers, secondary school teachers	6 minutes or more - depending if reading extra information	Beginner Intermediate	English	QR Code could be projected for students to scan and be redirected to online quiz. % right or wrong questions could appear on screen.
13	The Bioeconomy starts here!	https://www.youtube.com/watch?v=2xvXkOMRTs4	Bioeconomy	Video accessible via youtube	European Commission 2014	Video explains briefly the most important basics of a bioeconomy by means of an animated film. It presents the differences between fossil and biological resources as basis for products. It introduces the bioeconomy as a circular economy and illustrates its positive aspects and advantages in the future. Video is well made and informative. As it is only 2 min long and can have captions in 24 EU languages, it a useful teaching resource.	primary school pupils, secondary school pupils, university students	2 minutes	Beginner	English but captions in all 24 EU languages	Video could be a nice start to a presentation on key principles of bioeconomy and circular economy.
14	The Blue Bioeconomy	https://www.youtube.com/watch?v=WEp3fFleZc4	Bioeconomy	Video accessible via youtube	Matís Iceland 2016	Focus on the bioeconomy linked to the sea and related industries - the blue bioeconomy. Interesting that shows route that bioproducts can make from source to production. Video gives insight on how byproducts that are commonly considered as waste can be utilised for other purposes, e.g. use of Atlantic cod's bones used for food supplements (fatty acids and proteins). Video explained in simple and easy to understand language, and has	secondary school pupils, university students, primary school teachers, secondary school teachers, university lecturers, business &	3 minutes and 40 seconds	Beginner	English (sub-titles include: Bulgarian, Latvian, Macedonian, Polish and Romanian)	Video can be used as an introductory video to bioeconomy due to its simple and concise definitions and easy to understand examples.

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						enjoyable animations, and so is suitable for a wide audience with varying abilities.	industry, NGOs				
15	Towards Sustainable Bioeconomy - Lessons Learned from Case Studies	http://www.fao.org/3/ca4352en/ca4352en.pdf	Bioeconomy	PDF report	Marta Gomez San Juan, Anne Bogdanski and Olivier Dubois 2019	Amazing resource with 26 case studies on sustainable bioeconomy with links to SDGs. Interesting detail about uses of bioeconomy around the world. Well formatted report that can easily be used as a teaching resource. Report highlights value and success of each case study.	secondary school pupils, university lecturers, business & industry, government, NGOs	2 hours or more	Intermediate Advanced	English	In groups, discuss how case studies can be implemented on a local, national or global scale.
16	3 creative ways to fix fashion's waste problem	https://www.ted.com/talks/ amit_kalra_a_3_creative_ways_to_fix_fashion_s_waste_problem	Circular Economy (CE)	Video - Ted talk	Amit Kalra, TED@Tommy 2017	interesting video on fashion and waste. Discusses ways to reuse and recycle unwanted clothes and how industry could make clothes more modular in their composition and use biodegradable materials. Interesting that video also talks about the use of harsh chemicals as garment dyes and how these dyes are affecting possible water supplies. It also addresses how use of these chemicals can make it harder for a product to be reused/recycled as it is not possible to remove the colour, adding another factor to consider when establishing a CE.	secondary school pupils, university students, secondary school teachers, university lecturers, business & industry	9 minutes and 37 seconds	Beginner Intermediate	English but transcript available in 19 different languages (Including, French, Hungarian, Polish, Russian, Spanish)	Show video to students to get them thinking about the fashion industry and the waste associated with fast fashion.
17	A circular economy for salt that keeps rivers clean	https://www.ted.com/talks/tina_arrowood_a_circular_economy_for_salt_that_keeps_rivers_clean/	Circular Economy (CE)	Video	Tina Arrowood, TEDTalk 2019	Video informs and educates on the possibility and necessity of protecting the rivers from excessive salt that comes from human activity; this can be achieved through circular economy. A three-step river defence mechanism is introduced, explaining how to recover salt from salty industrial wastewaters and reuse it..	university students, university lecturers, business & industry	13 minutes	Intermediate Advanced	English but subtitles in 11 languages (including French, Hungarian, Spanish)	Use diagrams explaining three-step river defence mechanism and salt generation in linear and CE.
18	A healthy economy should be designed to thrive, not grow	https://youtu.be/Rhcrbcg8HBw Raworth, K. (2017): <i>Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist</i> . 1st	Circular Economy (CE)	TED Talk (Youtube video)	Kate Raworth, TEDTalk 2018	An important and interesting talk highlighting the issues with our current mass consumerist culture and critiques an economy built on endless growth. Unpicks the issues of GDP growth. This video contrast these issues with a new model of Doughnut Economics - a visual framework for sustainable development combining the concept of planetary boundaries	secondary school pupils, university students, secondary school teachers, university lecturers, business &	16 Minutes	Intermediate	English (but subtitles in 23 languages including Bulgarian, French, Hungarian, Russian and Spanish)	Students could try and plot their own lives on the Doughnut model.

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		ed. Vermont: Chelsea Green Publishing.				with the complementary concept of social boundaries.	industry, NGOs				
19	A short guide to the Circular Economy: The CEPS framework	http://www.ceps-ech.eu/sites/default/files/PPT%20CEPS%20Special%20Report%20on%20the%20CE_0.pdf	Circular Economy (CE)	PowerPoint	Igor Taranic (CEPS - Centre for European Policy Studies) 2016	Presentation based on a report about the framework 'Circular Economy Progress for Stakeholders' (which confusingly has the same acronym as the Centre for European Policy Studies), with an overview of the key principles of the CE model and recommendations to European policy-makers on how best to support the transition towards a CE in the EU. Links CE to political change and policy creation and it is useful to see some real-life examples.	secondary school pupils, secondary school teachers, university students, university lecturers, business & industry	20 Minutes	Intermediate	English	Could use diagrams & different building blocks of the CE Model as an intro to the concept.
20	A World without waste	https://www.ted.com/talks/kate_e_brandt_a_world_without_waste	Circular Economy (CE)	Online Video of a TEDWomen Talk	Kate Brandt (Google Sustainability Officer), TEDWomen Talk 2018	Video explains the CE concept and the speaker's plan to green up Google by creating a CE which reuses, recycles and eliminates waste altogether. Using her own experience, she discusses the idea of a Circular Datacentre. An engaging speaker and a useful video in terms of content and explanation of the CE concept.	secondary school pupils, university students, business & industry	12 minutes and 18 seconds	Intermediate	English	Show video in class, followed by discussion on the various ways of applying CE.
21	Circular Canvas	https://circulab.com/toolbox-circular-economy/circular-canvas-regenerative-business-models/ NuÃholz, J.L.K., (2018): A circular business model mapping tool for creating value from prolonged product lifetime & closed material loops. <i>Journal of Cleaner Production</i> , 197: 185- 194.	Circular Economy (CE)	Materials to support a workshop discussion.	Ciculab 2014	Ciculab provides this Circular Canvas for companies and other organisations to download, print and then use in group exercises for structured conversations about designing for circularity. This simple tool is targeted at organisations that had not previously considered circularity. It comes with instructions on how to run a group exercise using it. It could be used for considering ways in which to increase the circularity of existing products, or to support the design process for a new product. It could be used by multi-functional teams in industry that are not yet familiar with circular economy concepts. The suggested "investigation cards" provide useful stimulus for discussion. It can also be used by high school and	secondary school pupils, secondary school teachers, university students, university lecturers, business & industry	2 hours	Intermediate	Chinese Dutch English French German Italian Spanish	Workshop in groups of 4 to 8

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						University students, maybe in a business class.					
22	Circular economy	http://www.europa.europa.eu/thinktank/infographics/circular-economy/public/index.html	Circular Economy (CE)	Interactive Graphics	European Parliamentary Research Service 2018	Great attractive interactive informational graphics to use in class that explain linear economy, circular economy, materials, waste, smarter use of resources, materials usage, reduce, recycle, reuse, and EU actions (rules, regulations, statistics, initiatives).	secondary school teachers, university, university lecturers,	30 minutes	Beginner Intermediate	English	Class activity to discuss and explore facts & figures of the interactive infographics.
23	Circular Economy - hacking a broken system while building a new future	https://www.youtube.com/watch?v=_PKbUFJ3lu4	Circular Economy (CE)	Video - TEDxTirana talk	Harald Friedl (CEO of Circle Economy) 2018	Video provides an engaging, informative, and valuable intro to the concept of a CE. Three real companies and their services/products are discussed that aim to operate in a more circular fashion. Explains feasibility and need for a transition towards more sustainable ways of living. Highlighting how detrimental the linear economy (take, make & dispose) is.	secondary school pupils, university students, business & industry, NGOs	22 minutes and 44 seconds	Beginner Intermediate	English	Show video to class. Possibly show in smaller excerpts.
24	Circular Economy - Sustainable Materials Management	https://www.coursera.org/learn/circular-economy	Circular Economy (CE)	Course taught online through videos, readings & quiz. Quiz done at the end of each module to ensure that the learner has fully understood content.	Lund University and seven others partners 2020	Free online course that looks at sustainability and the circular economy. This is a fantastic learning tool that is not only delivered by the top university of Lund but also involves industry experts such as EIT RawMaterials through Coursera. Additionally, there is opportunities to get involved in peer reviewed activity to allow learners to engage in discussion with fellow users. Course modules encourage learner to consider circular economy at all levels from the materials chosen for production of a product, to policies and networks.	university students, secondary school teachers, university lecturers, business & industry, NGOs	21 hours over 5 weeks	Beginner	English	A full online course, 21 hours, over 5 weeks. <i>Free course but course completion certificate costs around €41 (financial aid is available if required).</i>
25	Circular Economy Business Worksheet	https://ceaccelerator.zerowastescotland.org.uk/circular-guide/how-can-i-get-started/ The additional resource 'Circular	Circular Economy (CE)	Worksheets	Zero Waste Scotland 2019	Worksheets to help companies review their current practices and identify how they could incorporate the CE into their business. There are four worksheets which take you through step by step: 1. starts with analysing current practices, finding all inputs and outputs. 2. look at these and find if any	secondary school pupils, secondary school teachers, university students, university	1 hour and 20 minutes	Intermediate	English	Split into groups of 4 or 5 and work through the worksheets for their own business (or case study

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		Economy Strategy Cards' is also required. This is available for download at https://ceaccelerate.zerowastescotland.org.uk/ under the heading 'Circular Strategies'.				of the inputs could be sourced more sustainably or if any of their outputs could be used by someone else. 3. then use this to see how their business fits into CE strategies (by using another resource, the "Circular Economy Strategy Cards'). 4. Finally, make a commitment to allocating time and money to researching these further and implementing them. Really good resource that works with students working in groups analysing a case study (maybe as part of a business class).	lecturers, business & industry, government, NGOs				business if students) and discuss findings in their groups.
26	Circular Economy Club	http://www.circular-economyclub.com/listings/	Circular Economy (CE)	Website	Circular Economy Club (CEC) 2012	CEC is the largest international network of CE professionals with 260 CEC local chapters in 110 countries. The website allows members from all over the world to share overviews and links to resources (articles, books, news, podcasts) about CE. Good source of links to interesting case studies and examples of circular products and systems. As there are members from all around the world, there are also sources with different languages.	secondary school teachers, university students, university lecturers, business & industry, NGOs	Variable, depending of activity and reading.	Beginner Intermediate Advanced	Chinese Dutch English French Italian Japanese Portuguese Spanish	Provide examples of developments and utilization of circular models in businesses.
27	Circular Economy General Resources Map (Ellen MacArthur Foundation)	https://kumu.io/ellenmacarthurfoundation/educational-resources#circular-economy-general-resources-map/key-for-general-resources-map .	Circular Economy (CE)	Web page that contains lots of video, articles, business case studies and reports in one single place.	Ellen MacArthur Foundation (EMF) Since 2010 & constantly updated	This is an amazing resource, completely interactive and incorporating a large spider diagram (or mind map) to show the connections of all the aspects of the CE. The interactive resource mind map is a collection of almost all educational resources that have been published, including videos, graphics, reports, case studies, articles, etc., providing an organised collection of all knowledge and educational materials published by EMF, starting from the introduction to Circular Economy to Business Case Studies and CE Reports. This is the best place to go to learn more about CE and what progress is being made worldwide. This page provides all types of educational materials from very interesting few-minutes-long videos to	primary school teachers, secondary school teachers, university lecturers, secondary school pupils, university students, business & industry, government, NGOs	Varies due to the wide range of materials - it could take minutes, hours, days or weeks to go through some or all of these materials.	Beginner Intermediate Advanced	English	Since this webpage contains lot of materials in one place, the teachers or users of this resource should go through this resources to find out what kind of information is there and what can be incorporated into their teaching curriculum.

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						inspiring long research report publications for different industries.					
28	Circular Economy in Cities	http://www3.weforum.org/docs/White_paper_Circular_Economy_in_Cities_report_2018.pdf	Circular Economy (CE)	White Paper	World Economic Forum - PwC 2018	In-depth analysis of the need for cities to transition towards a circular economy. Highlights innovative solutions applying circular principles to up-cycle waste from existing buildings, infrastructure and construction, harvest rainwater for reuse, generate clean and resource-efficient energy, treat medicinal waste, as well as procurement of goods and services. Also identifies barriers to implementation and the role of individual stakeholders in overcoming these barriers. Interesting use of case studies (e.g. up-cycling brick walls by cutting out modules to use in buildings).	secondary school pupils, secondary school teachers, university students, university lecturers, business & industry	1 hour or more	Intermediate Advanced	English	This white paper includes a number of case studies on different topics and cities which could be discussed in class.
29	Circular economy: Marcel Wubbolts at TEDxMaastricht	https://www.youtube.com/watch?v=EsozREJUxjw	Circular Economy (CE)	TEDx talk video	Marcel Wubbolts, TEDx 2014	Talk about how the linear economy is affecting our global ecological footprint and how CE can help manage and protect our resources by transforming 'waste' into something valuable. Plus how this change applies to everyone: scientists, industries, the government, and consumers. Talk discusses how biotechnology can transform the way we handle waste and use it to generate energy or fuels.	secondary school pupils, university students, business & industry, NGOs	13 minutes 19 seconds	Intermediate	English	Discussion on how waste can become a resource.
30	Circular Economy: An Introduction	https://www.edx.org/course/circular-economy-an-introduction	Circular Economy (CE)	Online teaching course with videos, interactive assignments and quizzes to help evaluate the progress of the user.	edX, Delft University of Technology 2019	This course teaches how to contribute to a sustainable economic system by implementing novel business and design approaches, based on the circular economy. It is at an introductory level course under business & management subjects. It is very well organised with nicely designed videos and staff that could be contacted for further information.	secondary school teachers, university students, university lecturers, business & industry, NGOs	3-6 hours per week, over 7 weeks course	Beginner Intermediate	English	Full online course, 35 hours, over 7 weeks. <i>Free course but course completion certificate costs around €46.</i>

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31	Circular Economy: case studies	https://www.worldsteel.org/steel-by-topic/circular-economy/case-studies.html	Circular Economy (CE)	Webpage	World Steel Association 2020	This is a very good learning resource to help understand the benefits of CE. A very practical teaching resource that provides a lot of concrete examples of CE. A resource that links CE ideas to actual case studies, for example, 'reduce' topic links to production technologies that reduce waste.	secondary school pupils, secondary school teachers, university students	1 hour	Beginner Intermediate	Chinese English	Discuss in small groups one or more of the case studies.
32	Dame Ellen MacArthur: food, health and the circular economy	https://www.youtube.com/watch?v=M6MLFJDddM4	Circular Economy (CE)	Youtube Video	Ellen MacArthur at the 2015 EAT Food Forum 2015	An opportunity to listen to Ellen MacArthur, an inspirational speaker. She explains what is the CE and how CE can improve the entire economic system, reusing raw materials and flow them back into the economy, changing the whole system, not only the item itself. This teaching resource is very useful because it is easy to understand. Talk is rich in examples, and has many diagrams and pictures, to show how CE is important and relevant.	secondary school pupils, university students, secondary school teachers, university lecturers, business & industry, NGOs	10 minutes	Beginner	English but subtitles translated in many languages (including Bosnian, Latvian, Macedonian, Bulgarian, Polish, Romanian)	It could be used during early lessons because it is an introduction of the Circular Economy concept.
33	Developing Scotland's circular economy: consultation on proposals for legislation	https://www.gov.scot/publications/delivering-scotlands-circular-economy-proposals-legislation/pages/3/	Circular Economy (CE)	Website	Scottish Government 2019	Informative website with detailed description of what the CE and waste hierarchy are. Information on the Scottish Government waste targets. This is a useful resource to learn about CE and sustainability. This resource also has information about the Zero Waste Scotland plan and certain systems which are in place to help reach waste targets, such as a "deposit return scheme" used for single use plastics and containers. Diagrams are very good as they are clear & informative.	secondary school teachers, university lecturers, business & industry, government, NGOs	30 minutes	Intermediate	English	Suggested reading for students, or reference the figures and diagrams in lecture slides.
34	DK Osseo-Asare: What a scrapyards in Ghana can teach us about innovation	https://www.ted.com/talks/dk_osseo_asare_what_a_scrapyard_in_ghana_can_teach_us_about_innovation	Circular Economy (CE)	TEDTalk	DK Osseo-Asare, TEDTalk 2017	An informative talk about a bottom-up approach to CE. In Agbogbloshie, a community in Accra, Ghana, people descend on a scrapyards to mine electronic waste for recyclable materials. Without formal training, these urban miners often teach themselves the workings of electronics by taking them apart and putting them together again. Designer and TED Fellow DK Osseo-Asare questions: What would happen if we connected these self-taught community members from Agbogbloshie with students and	secondary school pupils, university students, business & industry, NGOs	14 minutes and 9 seconds	Intermediate Advanced	English but 18 languages available in transcript, including French, Hungarian, Russian, Serbian, Spanish)	Lesson Plan 1: in groups list 10 items that could be regenerated into a new device (a race as fastest team wins). 2: ask examples & put on board. 3: Ask what is world's

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						<p>young professionals in STEAM fields (science, technology, engineering, art and mathematics)? This video is informative in many ways. Firstly, the speaker uses lots of visuals such as photographs to address the theme of CE. By using a grassroots approach as an example of CE, students and young professionals in STEAM fields may be encouraged to apply similar models in their own area of work. Additionally, the scope of social capital in this community in Accra, Ghana is a positive incentive to other communities around the world faced with similar problems. Important real world example of the possibilities of the CE, given in an easy to understand and engaging format. The move away from more traditional ways of learning and instead to more heuristic learning could help create more sustainable communities and do away with consumerist societies.</p>					<p>largest digital dump? 4: intro to video and ask to try and answer the following questions: a) What harm can burning electronic devices have on human health and the planet? b) What might industries learn from this community in terms of CE?. 5): Go over answers & discuss video.</p>
35	Eliminating waste in a circular economy	https://finland.fi/business-innovation/eliminating-waste-in-a-circular-economy/	Circular Economy (CE)	Online magazine	Fran Weaver 2016	<p>This article discusses innovative technologies in maximizing materials and reducing waste. It explains how industries & businesses are being changed in Finland to fit into the CE model. It is an interesting article, recommended because it can help students better understand how to achieve CE and how to sort and recycle materials, helpful for sustainable development.</p>	secondary school teachers, university lecturers, business & industry, NGOs	30 minutes	Beginner	Chinese English French German Portuguese Spanish	Discussion of key issues in class.
36	Executive Summary on Waste to Wealth book by Peter Lacy & Jakob Rutqvist	https://thecirculars.org/content/resources/Accenture-Waste-Wealth-Exec-Sum-FINAL.pdf	Circular Economy (CE)	7-page online PFD document	Lacy & Rutqvist's Book published by Palgrave Macmillan; Executive Summary by Accenture 2015	<p>This is published as an executive summary of the 2015 book "Waste to Wealth" by Peter Lacy & Jakob Rutqvist, introducing the circular economy, explaining the need for circular economy, five circular economy business models, ten disruptive technologies and how the businesses can achieve the circular advantages. Very practical and inspiring knowledge on circular business models.</p>	secondary school teachers, university lecturers, business & industry	20 minutes	Intermediate	English	Could ask students to read this 7 page summary as reading materials and discuss the ideas or do quiz in class.

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37	Fashion industry & Circular Economy	https://www.youtube.com/watch?v=65zR2nU0sBU	Circular Economy (CE)	Youtube video	WorldDynamics 2017	Video gives an explanation of linear economy and CE in the fashion industry and how companies are trying to transition to CE and how customers can play a part. Good educational video focusing on fashion industry in CE.	secondary school pupils, university students,	5 minutes and 45 seconds	Beginner	English	Show video in class, followed by discussion.
38	Lecture 39 : Plastics and Circular Economy - Case Studies	https://www.youtube.com/watch?v=rxmTvPxRNik	Circular Economy (CE)	Video from open course ware under the name "National Programme on Technology Enhanced Learning (NPTEL)", funded by the Government of India.	Dr. Brajesh Kumar Dubey (Indian Institute of Technology Kharagpur, India) 2019	Talk on CE with primary focus on rethinking the design of products, the concept of which is explained by considering the company "Unilever" as a case study and the paradigm shift that is happening in terms of redesigning the products at the fundamental level so that they could be easily reused, recycled or composted. Talk focused on explaining the method by which we adjust productions of things to make them more useful for CE. With an analysis of an example along with the explanation, this resource is both useful and interesting.	secondary school pupils, university students, business & industry, NGOs	31 minutes and 46 seconds	Beginner Intermediate	English	Show video in class, followed by discussion. Ask students to think of other organizations and other countries.
39	Lesson 1: Challenging common conceptions	https://www.ellenmacarthurfoundation.org/assets/downloads/schools-colleges/Schools-Colleges-WLL-Lesson-Plan-1-F.pdf	Circular Economy (CE)	Webpage and YouTube videos Lesson plan has detailed instructions on how teachers can make use of material.	Ellen MacArthur Foundation 2012	1 st lesson of the lesson plan created to introduce students different ways of thinking how the economy could work: a CE. The series builds up exactly how a CE is different from the status quo, and looks at the economic, environmental and social advantages of a new approach. These lesson plans provide a good introduction to the CE, and can be taught in sequence or as stand-alone lessons. Very good to introduce the challenges of modern world in terms of productions and consumptions and the possible consequences in very short videos.	Age range: 12-19 (Economics, Geography, Environmental Systems, Sociology, Business, Citizenship)	60 minutes	Intermediate	English	Teachers should pre-watch nine 1-min videos & read notes for each video. Each video ends with a question. Show videos in class & ask students solutions & thoughts to each question.
40	Lesson 2: Exploring the circular economy	https://www.ellenmacarthurfoundation.org/assets/downloads/schools-colleges/Schools-Colleges-WLL-Lesson-Plan-2-V2.pdf	Circular Economy (CE)	Webpage	Ellen MacArthur Foundation 2012	2 nd lesson of the series about the CE (see row 38 above). These lesson plans provide a good introduction to the circular economy, and can be taught in sequence or as stand-alone lessons. Good practical interactive activity in class.	Age range: 12-19 (Economics, Geography, Environmental Systems, Sociology, Business, Citizenship)	60 minutes	Beginner	English	Lesson plan has detailed instructions on how teachers can make use of material.

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41	Lesson 3: Understanding the challenge of 'finite' resources	https://www.ellenmacarthurfoundation.org/assets/downloads/schools-colleges/Schools-Colleges-WLL-Lesson-Plan-3-F.pdf	Circular Economy (CE)	Webpage	Ellen MacArthur Foundation 2012	3 rd lesson of the series about the CE (see row 38 above). These lesson plans provide a good introduction to the circular economy, and can be taught in sequence or as stand-alone lessons. Good practical interactive activity in class.	Age range: 12-19 (Economics, Geography, Environmental Systems, Sociology, Business, Citizenship)	45 - 70 minutes	Intermediate	English	Lesson plan has detailed instructions on how teachers can make use of material.
42	Lesson 4: Designing for a circular economy	https://www.ellenmacarthurfoundation.org/assets/downloads/schools-colleges/Schools-Colleges-WLL-Lesson-Plan-4-F.pdf	Circular Economy (CE)	Webpage	Ellen MacArthur Foundation 2012	4 th lesson of the series about the CE (see row 38 above). These lesson plans provide a good introduction to the circular economy, and can be taught in sequence or as stand-alone lessons. Good practical interactive activity in class.	Age range: 12-19 (Economics, Geography, Environmental Systems, Sociology, Business, Citizenship)	120 minutes	Intermediate	English	Lesson plan has detailed instructions on how teachers can make use of material.
43	Lesson 5: The circular economy and modern agriculture	https://www.ellenmacarthurfoundation.org/assets/downloads/schools-colleges/Schools-Colleges-WLL-Lesson-Plan-5-F.pdf	Circular Economy (CE)	Webpage	Ellen MacArthur Foundation 2012	5 th lesson of the series about the CE (see row 38 above). These lesson plans provide a good introduction to the circular economy, and can be taught in sequence or as stand-alone lessons. Good practical interactive activity in class.	Age range: 12-19 (Economics, Geography, Environmental Systems, Sociology, Business, Citizenship)	45 - 70 minutes	Intermediate	English	Lesson plan has detailed instructions on how teachers can make use of material.
44	Lesson 6: Redesigning Plastics	https://www.ellenmacarthurfoundation.org/assets/downloads/schools-colleges/Redesigning-plastics-Final-v4.pdf	Circular Economy (CE)	Webpage	Ellen MacArthur Foundation 2012	6 th lesson of the series about the CE (see row 38 above). This lesson plan intends to deepen awareness of the systemic challenges around plastic packaging and how these might be overcome through redesign.	Age range: 12+ (Design and Technology, Biology, Chemistry, Environmental Sciences, Business)	90 minutes	Intermediate	English	Lesson plan has detailed instructions on how teachers can make use of material.
45	Re-thinking Progress	https://www.youtube.com/watch?v=zCRKvDyyHml	Circular Economy (CE)	YouTube video	Ellen MacArthur Foundation 2011	Short animated video which explains the circular structure of the natural world and the linear, disposable structure of human society. Explains the steps that are needed to progress into a CE and the need for the whole system to work together to implement lasting change. The animation is really colourful and fun and this adds to how clear and accessible the video is.	secondary school pupils, university students, business & industry, NGOs	3 minutes and 48 seconds	Beginner Intermediate	English	After watching the video, students could propose ideas for a circular business.

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46	Rethinking Plastic & Waste to drive the Circular Economy in Asia	https://www.youtube.com/watch?v=gPCTIDO2Z5U	Circular Economy (CE)	YouTube Video	Wastepickers 2016	Video about the state of plastic waste in Asia, more specifically India. Mentions how plastic can be reused back into the economy, and how Wastepickers (an organisation in Bangalore) is aiding in this process. Describes how companies in India are being made more responsible. Video is useful to show benefits and viability of CE.	secondary school pupils	4 minutes and 50 seconds	Beginner	English	Show video in class, followed by discussion.
47	Sustainable Packaging in a Circular Economy	https://www.edx.org/course/sustainable-packaging-in-a-circular-economy	Circular Economy (CE)	Online course that uses a mix of PowerPoint slides, videos, quiz and readings as deliverables.	TU Delft 2020	Free course available as MOOC. It's divided into six 'episodes', one per topic regarding different aspects of packaging. The episodes are presented by various instructors and each episode is followed by a case study and assessment sections. The content is engaging from the beginning. The lectures are delivered via video, with extra features such as transcript, subtitles and speed control. Below the videos are reading suggestions and the lecture main takeaways. At times, a slide is presented in between videos and this acts as recap for the previous video or introduction to the new video. The course is good, concise enough but still informative.	university students, secondary school teachers, university lecturers, business & industry, NGOs	3-4 hours per week over 6 weeks	Intermediate	English	A full online course, 3-4 hours per week over 6 weeks. Free course but official certificate of course completion costs around €46.
48	System Reset: Design and Technology for a Circular Economy	https://www.stem.org.uk/resources/collection/3927/system-reset-design-and-technology-circular-economy	Circular Economy (CE)	Collection of lessons, presentations, videos, games, and flash cards.	Ellen MacArthur Foundation; STEM Learning Ltd. 2010 - 2019	Material was specifically designed for high school teachers to teach key principles of CE. It is divided up into six separate activities with additional material such as videos and virtual index cards. Each activity contains lesson plans, lessons and presentations. The multiple lessons, videos, games, and other tools allow for teachers to individualize their lessons.	secondary school pupils, secondary school teachers (Target ages: 11-14, 14-16, 16-19)	1 school year (contains entire lesson plans)	Intermediate	English	Material is ready to be used with high school students.
49	Taking trash talk to a whole new level	https://www.ted.com/talks/peter_harris_taking_trash_talk_to_a_whole_new_level/details#t-2154	Circular Economy (CE)	Online Video of a TED Talk	Peter Harris (UPS Sustainability Director), TED 2015	Very good talk on an interesting topic, given by UPS' Sustainability Director, Peter Harris. Talk describes dealing with the waste of a consumer society as one of the greatest challenges at the moment. He proposes a plan where methane from the trash we produce fuels trucks that transport our critical goods as part of a closed-loop.	secondary school pupils, university students, secondary school teachers, university lecturers,	9 minutes and 55 seconds	Beginner	English	Incorporate video into CE lesson or a class on logistics (UPS are a logistics company). Could also be used to spark

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						This is an excellent resource for educating on the benefits of using renewable gas as part of a CE, and how how companies can make changes to be part of a CE.	business & industry, NGOs				discussion on renewable gas benefits.
50	The circular classroom	https://circularclassroom.com/ Web article by the creator: "The Circular Classroom: a Free Toolkit for Activating the Circular Economy through Experiential Learning", https://medium.com/disruptive-design/the-circular-classroom-a-free-toolkit-for-activating-the-circular-economy-through-experiential-64ffe1274b9c	Circular Economy (CE)	Three modules with workbooks that include information and activities with accompanying videos.	Dr. Leyla Acaroglu (in consultation with upper secondary Finnish Educators & students), The Circular Classroom, Finland 2018	The circular Classroom is a free high quality toolkit designed for high school students and teachers to incorporate the principles of CE into their lives. It was co-created with the help of both teachers and students. It includes three modules each with a workbook and complimentary videos. There are also lots of extra resources on the website (e.g. on sustainability, zero waste initiatives, SDGs, life cycle of different products, ecology, human footprint, issues of fast fashion, the story of microplastics). It is excellent as it has many interactive activities that help to fully engage the student. These activities can also be completed in groups, allowing individuals to share ideas and see different viewpoints. Not only does it provide the resources for learning, it also gives directions on how to deliver and teach the content to a class. Website also provides a platform for teachers and students to share their own experiences.	secondary school pupils, secondary school teachers	3-6 hours	Intermediate	English Finnish Swedish	Material is ready to be used with high school students. Material was specifically designed as a learning resource for secondary school students.
51	The Circular Economy	https://www.youtube.com/watch?v=N-cWaRRLh3k	Circular Economy (CE)	YouTube video	Ellen MacArthur Foundation 2010	Ellen MacArthur takes us on a journey to investigate how insights from living systems might offer some of the answers to how we can re-design our future, in a world of increasing finite materials and energy. Very good informational short video	secondary school pupils, university students, business & industry, NGOs	7 minutes and 4 seconds	Beginner	English	Show video in class, followed by discussion
52	The Circular Design Guide	https://www.circulardesignguide.com/ Reigado, C., Fernandes, S., Saavedra, Y., Ometto, A. & Da Costa, J. (2017): A Circular	Circular Economy (CE)	Website with lot of resources. The workshop section provides downloadable sheets.	Collaboration between the Ellen MacArthur Foundation & IDEOS 2018	The Circular Design Guide is an online tool to help innovators rethink and redesign their design process in order to help create a more efficient CE. There are free, downloadable workshops, worksheets, and videos available, which all help to illustrate how transformative circular principles are for businesses. This is a useful and unique resource, as it encourages	secondary school pupils, university students, business & industry, NGOs	1-2 hours	Intermediate Advanced	English	Instructions for workshops are very well laid out and should not require much facilitation. All is needed is to give the instructions to

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		Economy Toolkit as an Alternative to Improve the Application of Product Service Systems Methodologies. Procedia CIRP,, 64: 37–42.				debate and discussion with fellow participants highlighting that the CE is a fundamentally collaborative process, where inputs and outputs are reconfigured to maximise the resilience and sustainability of the system as a whole. This is particularly relevant for business owners who are perhaps looking to change their business model or production process. It could also be eye-opening to students, as it can help internalize this thought-process for the next generation of entrepreneurs.					participants and let them get to work.
53	The Circular Economy Podcast	http://www.circulareconomy.com/	Circular Economy (CE)	Podcast and script	Catherine Weetman, Rethink 2019	A podcast informing about CE (episode 1) and how different people use the circular approach, rethinking how we design, make and use everything. A different media of resource compared to the rest, and therefore an interesting change. People & businesses presented on the podcast are very diverse in terms of their businesses (e.g. baby clothing renting, food-to-go containers, reusable school uniforms). Plus, people talk about challenges they had to overcome with their own businesses which is useful for people who are thinking about opening their own business. The podcast can inspire but also inform people about wider possibilities	university students, primary school teachers, secondary school teachers, university lecturers, business & industry, NGOs	Podcast Episode 1 is 21 minutes and 47 seconds long. Other episodes are up to around 40 minutes long	Intermediate	English	To use a podcast in a classroom might be difficult. However, it could be recommended for students to use it as a reference to gain additional information on a specific topic.
54	The Circular Economy: A Simple Explanation	https://www.youtube.com/watch?v=cbm1MCTobVc	Circular Economy (CE)	Video - TEDx talk	TEDx Talks, Cillian Lohan 2018	What is a "Circular Economy"? Why should we care? What does it mean for us? In this talk, Cillian Lohan, CEO of an Irish NGO, the Green Economy Foundation, explains the basic principles behind the economic concept of a circular economy and how it can really change the world for the better. A very well made TED talk about the circular economy, explained clearly with easy to understand language and applicable examples. The video is great at giving people the knowledge of what a circular economy	primary school pupils, secondary school pupils, university students, primary school teachers, secondary school teachers, business & industry, NGOs	13 Minutes	Beginner	English	Show the video in the classroom, discuss the basic principles. Then move on to a more in depth discussion on goals that could be achieved.

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						is, touching on the basic principles and why it is important. I would recommend the video to younger people and highly recommend that they spread the message of the importance of the circular economy concept.					
55	The circular economy: from consumer to user	https://www.youtube.com/watch?v=Cd_jsKtGaf8	Circular Economy (CE)	YouTube video	Ellen MacArthur Foundation 2013	What if we didn't buy the goods we use, but instead favoured access and performance over ownership? This very good short animation provides a brief introduction of circular business models and in particular the performance model, as a solution to transition to a regenerative circular economy.	secondary school pupils, university students, secondary school teachers, business & industry, NGOs	3 minutes and 11 seconds	Beginner	English	Show video in class, followed by discussion.
56	The Circularity Gap Reporting Initiative interactive tool	https://www.circularity-gap.world/2020#interactive	Circular Economy (CE)	interactive web tool to explore how countries can close the global circularity gap	Circle Economy 2020	Very useful, well made and interesting interactive tool to actually see how different countries around the world compare to each other and why they are different and what can be done to improve it. Very easy to use. It gives a good visualisation of the world needs to do to live sustainably, and provides information on how we can work towards a CE. Annual report on progress made to fill the 'gap found here': https://www.circularity-gap.world/about	secondary school pupils, university students, secondary school teachers, university lecturers, business & industry, NGOs	5-10 minutes	Beginner Intermediate	English	Use tool in class, followed by discussion
57	The Circularity Gap	https://www.youtube.com/watch?v=Wiax9ISCfYY	Circular Economy (CE)	YouTube video linked to Circularity Gap website (www.circularity-gap.world)	Mark de Wit (Circularity Gap), TEDx 2018	Video addresses the issue of our world only being 9% circular - a 'gap' that must be fixed. Video presents 4 practical strategies to fill the 'gap': 1. Recycle more, 2. Optimise more, 3. Stop wasting, 4. Stop extracting. The video is clear and concise.	secondary school pupils, university students, business & industry, NGOs	11 minutes and 44 seconds	Intermediate	English	Show video before using the circularity gap tool (line 56 above)
58	The Circulars Yearbooks	https://thecirculars.org/insights	Circular Economy (CE)	Circulars Yearbooks - have statistics and data of the yearly circular economy movement, and short summaries of the Circulars' Winners,	World Economic Forum and the Forum of Young Global Leaders / Accenture Strategy Yearly since 2015	The Circulars is the world's premier CE award program. The award offers recognition to individuals and organizations across the globe that are making notable contributions to the CE in the private sector, public sector and society. Reports showcase pioneering CE efforts, ranging from innovative, new and digitally disruptive enterprises and pioneering multinationals, to cities pushing established sustainability boundaries,	university students, secondary school teachers, university lecturers, business & industry, government, NGOs	Depends of what information is checked and how many of the yearbooks – could range from minutes, to	Intermediate	English	The Circulars award winners over the years is a great resource for case studies. Leaders could give guest lectures. Business model and

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				Runners Up, Finalists and Highly Commended.		to dedicated CE investors developing infrastructure to finance this growing movement. Definitely offers a unique perspective and engaging ideas on the CE. Plus, works as a great source of inspiration for continued innovation in the CE. Offering great insights into the key players and industries that are disrupting their business practises to be eco-friendlier and sustainable. With the Young Global Leaders Award for Circular SME you learn what each SME is doing and what's their impact. The bitesize information with links to each award recipients profile (website & social media) is very useful too.		hours or days..			tech adoption across 5 years of circular entries can be used to learn about the evolution of the CE and how the industry are adapting to changes.
59	The Future of Cities	https://www.ellenmacarthurfoundation.org/resources/learn/schools-colleges-resources	Circular Economy (CE)	Website with lesson plan and other teaching resources	Ellen MacArthur foundation 2017	Impressive high quality resource that actually provides ready-made lessons for students to learn about CE. An adaptable teaching resource for children around the age of 15. To be used in school or college settings. To be led by a teacher with a focus on group or class discussion. Tablets and computers will make it more engaging. This lesson plan outlines the need for a CE in future cities. It argues that doing so will create better ways of effectively managing cities through technological advance and innovation. The resource provides the same narrative that is found throughout the Ellen MacArthur website, that is a framework that is restorative and regenerative by design is the way forward.	secondary school pupils, secondary school teachers	Six one hour classes	Beginner Intermediate	English	Resource has quick and easy lesson plans ready to be used by teachers.
60	Towards the circular economy: Economic and business rationale for an accelerated transition	https://www.ellenmacarthurfoundation.org/assets/downloads/publications/Ellen-MacArthur-Foundation-Towards-the-Circular-Economy-vol.1.pdf	Circular Economy (CE)	PDF report	Ellen MacArthur Foundation 2013	Ellen MacArthur Foundation's in-depth report on the Economics of a Circular Economy. The report has detailed information on the CE, including limits of linear consumption and economic opportunity of CE. The in-depth report takes the concept of a "circular economy" one step further, to analyse its promise for businesses and economies, and to prepare the ground for its adoption.	secondary school teachers, university lecturers, business & industry, government, NGOs	2 days	Intermediate Advanced	English	Students could give a presentation or write a one page summary the report.

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61	Waste generation and management	https://www.active.sustainability.com/environment/waste-generation-management/	Circular Economy (CE)	Video, along with text description in the webpage.	Acciona, Sustainability for all 2019	Video explains how increasing waste generation is directly related with the current model of production and consumption, and need to change to a circular model where producers use waste as raw materials and consumers make a responsible use of products applying the 3Rs rule: reduce, reuse and recycle. Video has an interesting approach relating the CE model with product consumption and waste generation. The animations are dynamic keeping attention of audience. Information straightforward and simple to follow.	secondary school pupils, university students, secondary school teachers, university lecturers, business & industry	Video 4 minutes and 22 seconds (15 minutes text web page)	Beginner	English	Show video in class, followed by discussion
62	What is circular economy?	https://www.youtube.com/watch?v=HKpH89xAAWs	Circular Economy (CE)	Video	Acciona 2018	An informative and engaging introduction to the CE. Video reviews the issues with the linear economy and the advantages of a CE. Environment impact evaluation and waste-to-energy production are both covered. A very simple video explaining the CE, this is a very well made video and it is clear and concise. The video benefits from engaging animations throughout. The use of text is limited which helps keep the video dynamic while allowing it to be accessible to a wide range of audiences including those who do not speak English.	primary school pupils, secondary school pupils, university students, primary school teachers, secondary school teachers, business & industry, NGOs	2 minutes and 18 seconds	Beginner	English	Show video as part of an introduction to the circular economy
63	What is the circular economy? CNBC Explains	https://www.youtube.com/watch?v=__0Spwj8DkM	Circular Economy (CE)	YouTube video	CNBC International 2018	Brief explanation of how circular business model works using lighting as a leasing service, policy developments in Europe, environmental and economic benefits, the cost involved in redesigning the products and supply chain. Very good short video.	Anyone interested	3 minutes and 42 seconds	Beginner	English	Use case study example on lighting as a service model.
64	Why we need to rethink how we build homes	https://www.youtube.com/watch?v=5RrEJMMil9w	Circular Economy (CE)	YouTube Video	Ged Finch; TEDxWellington 2019	Video is about how a CE model can fundamentally disrupt the way we build houses and the use of Modern Digital Fabrication. If construction can be done in an eco-friendly way, then we can ensure that the impact on environment by harmful infrastructure can be reduced.	secondary school pupils, university students,	14 Minutes	Intermediate	English	This video can be used for explaining students about the new techniques in construction sector.

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65	52 steps towards a greener city	https://op.europa.eu/en/publication-detail/-/publication/080dff-a8-49c5-11e8-be1d-01aa75ed71a1/	Sustainability/ Sustainable Development Goals (SDGs)	Downloadable PDF booklet	Directorate-General for Environment, European Commission 2018	This beautifully illustrated booklet contains 52 suggestions on how to support urban biodiversity throughout the year. Cities contain a lot of biodiversity, it is important that we protect it because we need it for our quality of life, our clean air, our food and water and our mental health. It links to Natura 2000 – a network of protects precious and threatened species and the natural environments that shelter them. There are 100 Natura 2000 sites in 32 major cities, sheltering 40% of threatened habitat types, half EU bird species, and 25% of rare butterflies protected by EU.	primary school pupils, secondary school pupils (ages 12 to 15, and 15 and over)	20 minutes	Beginner	Available in all 24 EU languages	Discuss in class which of the 52 ideas could be implemented at the school.
66	#Teach SDGs	http://www.teachsdgs.org/	Sustainability/ Sustainable Development Goals (SDGs)	Webpage with educational videos, facilitates teacher connection, connects people through social media. Goals project facilitates collaboration of classrooms working towards SDGs	TEACH SDGs 2020	Resource used to support the UN SDGs within primary and secondary classrooms and aims to connect to global educators dedicated with responding to a call to action and meet the SDGs. This teaching resource could be very helpful for teachers in schools. This content is valid for all ages. The resource allows and facilitates for collaboration with schools and classrooms across the world and this would give children a great appreciation for the world outside the classroom as well as forming the basis for a lesson that most of them would enjoy. It is relevant to inform educators, students, parents, and community members.	primary school pupils, secondary school pupils, primary school teachers, secondary school teachers	Varies for different resources. To get through the whole website takes a few hours.	Beginner Intermediate	English	Good to set up some projects in classroom and use video resources to give all the projects context. It is the kind of activity that school children would enjoy.
67	A Guide for Teaching the Sustainable Development Goals.	http://mcic.ca/pdf/SDG_Primer_FINAL.pdf	Sustainability/ Sustainable Development Goals (SDGs)	Guide (pdf)	Manitoba Council for International Cooperation (Canada) 2018	Excellent guide on teaching SDGs written with educators in mind, including case studies and links for further information. Guide has clear information, educational resources and other support to help educate and engage young people so that they support SDGs and are inspired to turn their support into action. Guide also explores how you can incorporate the different topics covered by each goal into lessons across multiple subjects. Each chapter in this guide summarizes main targets of each	primary school teachers, secondary school teachers, university lecturers,	Depends number of SDGs considered and in what detail.	Beginner Intermediate Advanced	English	Guide designed for educators or anyone who would like to teach young people about the UN SDGs.

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						goal, indicates learning objectives, gives context to 'the big questions' we need to ask to understand the issues, and what needs to be done by different stakeholders to achieve each goal.					
68	Ambitious, but not rocket science: SDG #6	https://www.youtube.com/watch?v=Cm7Ra5fbDic	Sustainability/ Sustainable Development Goals (SDGs)	YouTube video	United Nations 2018	Short informative video with effective animations on the SDG 6 - "Clean Water and Sanitation". Video highlights scale of the problem (1/3 world's population don't have a safe water supply) but goes on to detail SDGs role in tackling this important issue. This is an excellent resource. It does a great job of highlighting the disparity between human advancement (robots, AI, driverless cars) and the very large portion of the global population without access to clean water & safe sanitation facilities.	secondary school pupils, university students, secondary school teachers, university lecturers, business & industry, NGOs	3 minutes 16 seconds	Beginner	English	Show video in class, followed by discussion on SDG6.
69	Bulbs Carbon Quiz	https://calculator.bulb.co.uk/questions/transport	Sustainability/ Sustainable Development Goals (SDGs)	Quiz	Bulb Energy Limited 2020	Quiz asks questions about user's every day life. The questions range from what transports are used, what food eaten, and how renewable house is. The quiz then assesses answers and calculates a carbon footprint. It also tells biggest contributor to carbon footprint. An engaging and easy to use quiz which is personal and gives individual recommendations on how to reduce carbon footprint.	secondary school pupils' secondary school teachers, university students, university lecturers	10 minutes	Beginner Intermediate	English	Students to take the quiz in a computer class. In small groups discuss the factors most important to become more sustainable.
70	Concepts in Sustainable Development: An Introduction to the Key Issues	https://www.futurelearn.com/courses/sustainability	Sustainability/ Sustainable Development Goals (SDGs)	Online course with videos, articles and online quizzes as well as group discussion.	Future Learn: Derek Raine (University of Leicester, UK) 2020	Online course in sustainable development, economic growth and human activity on the environment. There are options for discussion and also the opportunity to ask questions to other students and gain feedback from the teachers. Students also have the ability to follow other students if they find their views and comments interesting, furthering the chances for learning and networking for the future.	university students, secondary school teachers, university lecturers, business & industry, NGOs	3 hours per week, over 6 weeks	Beginner Intermediate	English	Full online course, 18 hours, over 6 weeks <i>Free course but course completion certificate costs around €46.</i>
71	DECC 2050 Energy Calculator	http://2050-calculator-tool.decc.gov.uk/#/home	Sustainability/ Sustainable Development Goals (SDGs)	Interactive Carbon Calculator	Department of Energy and Climate Change (UK) 2011	Allows to create energy pathway to reduce greenhouse gas emissions by at least 80% by 2050. It allows to make choices and trade-offs across forty-two different sectors using real, open-source scientific data. Is an excellent tool for mapping a low	secondary school pupils, university students, secondary school teachers,	Depends of amount of pathways created and, as new data	Beginner Intermediate	English	Students could do exercise to achieve 80% CO2 reduction target using

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						carbon future in both a personal and professional capacity. It is user-friendly, intuitive, fun and engaging energy calculator and takes an all-encompassing approach by looking at demand, supply and storage. Calculator already been used by local communities, businesses, political leaders and the general public. Is a good platform for these groups to collaborate to see their collective impact and how they can work together towards a more sustainable future.	university lecturers, business & industry, NGOs	is always becoming available, it could be done several times.			multiple pathways.
72	Education for Sustainable Development Goals: learning objectives	https://unesdoc.unesco.org/ark:/48223/pf0000247444	Sustainability/ Sustainable Development Goals (SDGs)	Online and PDF document	UNESCO United Nations Educational, Scientific and Cultural Organization 2017	International guide for educators and professionals on education for SDGs. Recommends several topics and learning activities for each SDG. Document is well organised and arranged with attractive colours making the contents easy to grasp. Educators can use the suggested topics and projects in their classroom. The document outlines indicative topics and pedagogical approaches for each SDG. It clearly outlines what is required to implement learning for the SDGs.	primary school teachers, secondary school teachers, university lecturers	Can vary depending of what parts are read.	Beginner Intermediate	Arabic Chinese English Portugues Russian Spanish	Document can be used as guide to enable educators to provide appropriate contents to teach SDGs.
73	Free carbon calculators for individuals and small businesses	https://www.carbonfootprint.com/calculator1.html	Sustainability/ Sustainable Development Goals (SDGs)	Calculator	Carbon Footprint Ltd, UK 2020	Free resource to calculate carbon footprint of an individual or a small business based on annual gas and energy use, travel and consumerism. Also includes secondary carbon footprint factors such as food, pharmaceuticals and consumables. Gives tips on how to reduce carbon footprint and links to carbon offsetting projects. Mulrow et al. (2019) says is one of the top three carbon calculators.	secondary school pupils, secondary school teachers, university students, business & industry, NGOs	10 minutes	Beginner Intermediate	English	Ask students to guess if their footprint is above or below average then calculate to see how accurately they have guessed.
74	Frieda Makes a Difference: The Sustainable Development Goals and How You Too Can Change the World	https://issuu.com/unpublications/docs/frieda_2018	Sustainability/ Sustainable Development Goals (SDGs)	Children's book that you can either read online or download to print.	United Nations 2019	Children's book about the 17 SDGs. Book focuses on primary school students by outlining a better understanding of the SDGs. It is a fun, colourful and illustrative book that aims to engage younger people to participate and make a difference on their lives and on their surrounding lives.	primary school pupils, primary school teachers (children aged from 6 to 8)	15 minutes	Beginner	English French Spanish	Groups of 2-3 choose one SDG, learn about it & find ways to make a change. Then present to class.

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75	Future Learn: Organising for the Sustainable Development Goals (SDGs)	https://www.futurelearn.com/courses/organising-for-sustainable-development-goals	Sustainability/ Sustainable Development Goals (SDGs)	Online course that includes a series of lectures, videos and online quizzes to consolidate students' knowledge on subject matter.	Future Learn - Hanken School of Economics 2020	Course comprises an overview of the 17 SDGs and how to approach them. The course provides a fun and engaging approach to learning about the UN's SDGs. Users can interact and engage with other course-members via the online discussion forum. Innovatively, the course modules encourage users to work towards SDGs on a personal level through the suggestion of personal sustainable goals.	university students, secondary school teachers, university lecturers, business & industry, NGOs	3 hours per week over 7 weeks	Beginner Intermediate	English	Full online course, 3 hours per week over 7 weeks. <i>Free course but course completion certificate costs around €52.</i>
76	Go Goals!	https://go-goals.org/	Sustainability/ Sustainable Development Goals (SDGs)	Board Game that can be downloaded for free, in 20 different languages. (4 to 6 players) (8 – 10 years)	United Nations Regional Information Centre (UNRIC), with artist Yacine Ait Kaci 2017	An interesting and fun game, of high quality. Set up as a game similar to the classic "snakes and ladders" board game it has a fun and competitive aspect combined effectively with learning about the SDGs. With easy instructions in 20 languages, and all components (e.g. board, token, dice and cards) printable on a standard printer, the game is accessible to a large range of audiences from various backgrounds.	primary school pupils, primary school teachers (Parents could also play game with their.)	30-60 minutes	Beginner	English and 19 other languages (Including French Romanian Spanish)	Play board game in class.
77	Great Lakes Bioenergy Research Center Fields of Fuel Computer Game	https://www.glbrc.org/outreach/educational-materials/fields-fuel-computer-game	Sustainability/ Sustainable Development Goals (SDGs)	Computer game	Great Lakes Bioenergy Research Center- United States of America 2013	This computer game allows students to become farmers and learn skills about farming crops for biofuels. Demonstrates the economics and sustainability of farming biofuels, which is a major aspect of learning about bioenergy. It's a free resource for teaching the players the complex balance of economics, sustainability and energy use. Playing the game itself was fun and interesting to see the differences on a season to season basis based on which crops you play. The game has a multiplayer option and playing against classmates would be more fun.	secondary school pupils, secondary school teachers	30-40 minutes	Intermediate	English	Play in class. The teaching guide for teachers gives instructions on what the students should do based on their age.
78	Growing bricks, not another brick in the wall	https://www.youtube.com/watch?v=OcZI2rRocCU	Sustainability/ Sustainable Development Goals (SDGs)	YouTube Video	Ginger Kreig Dossier (BioMason); TEDxWWF 2013	Talk on how bricks can be grown using bacteria and advantages of this process over the traditional clay firing process. An interesting introduction to the potentials of bio-based materials in construction. It creates excitement around the possibility of using bacteria to grow materials and could create	secondary school pupils, univ students, secondary school teachers, univ lecturers, business &	12 minutes and 25 seconds	Beginner Intermediate	English	Show video in class, followed by discussion.

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						interesting discussion between engineers and scientists.	industry, NGOs				
79	Healthy and sustainable diets for the 21st century	https://www.nutrition.org.uk/nutrition-science/sustainability/sustainability/sustainability.html	Sustainability/ Sustainable Development Goals (SDGs)	Web Article	British Nutrition Foundation 2019	Interesting article discussing what it means to have a healthy, sustainable diet and provides a guide of how to eat with these considerations in mind. It acknowledges that sustainable diets have to incorporate numerous criteria: protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources.	secondary school pupils, university students, secondary school teachers, university lecturers	20 minutes	Intermediate	English	Read and discuss in class about the complexity of sustainable choices and role of consumers.
80	Learning Design for Sustainability	https://www.lynda.com/Graphic-Design-tutorials/Learning-Design-Sustainability/616671-2.html	Sustainability/ Sustainable Development Goals (SDGs)	Videos accompanied with commentary from author and instructor, and exercise files	Scott Boylston, via Lynda.Com 2017	Multi-module online learning course which covers the built environment, design, and the social, economic, and ecological aspects of sustainability. The materials are structured and presented in an easily-digestible way.	secondary school pupils, univ students, secondary school teachers, univ lecturers, business & industry, NGOs	1.5 Hours (structured into four modules ranging in times from 15-30 minutes)	Intermediate	English	Short online course that students can do at home.
81	Life Cycle Analysis: Tap Water vs. Bottled Water	https://sustainability.asu.edu/sustainabilitysolutions/programs/teachersacademy/teacher-resources/	Sustainability/ Sustainable Development Goals (SDGs)	Lesson plan, pictures and worksheets	The Sustainability Teachers' Academy team - USA 2015	This teaching resource engages the students in thinking about the life cycle of everyday items with a focus on bottled water in comparison with tap water. Includes the concept of "cradle to grave". Students work in groups using workshops (using a computer or printed hardcopies) to detail and evaluate the lifespan of a product and encourage them to start applying this evaluation to their own lives.	secondary school pupils, secondary school teachers	30-40 minutes	Beginner	English	In groups, students use hardcopies of worksheets and pictures or they can be used online by copy & paste pictures in PDF file.
82	Operation Sustainability - a story on the world's important customer	https://www.youtube.com/watch?v=RMx3bcTlxqY	Sustainability/ Sustainable Development Goals (SDGs)	YouTube Video	Animaskin on behalf of UN Association of Norway and UNICEF Norway	This is a short animation that highlights misconceptions of sustainable development through one girl's journey. She follows the supply chain of recycled electronics including transportation, sorting and processing and sees much that is wrong but does not act on it when she finds out she is a consumer. This is a fantastic	primary school pupils, primary school teachers, secondary school pupils, secondary school teachers	5 minutes and 25 seconds	Beginner Intermediate	English	After video ask: What was most recent purchase? How long did it take to be delivered?

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					2017	animation both visually and in terms of storyline. A fun video, entertaining and teaching important lessons about sustainability, and with good examples. Students could be asked to think if one of their recent purchases was sustainable.					Where was it made? More complex: draw supply chain for product, with estimate for CO ₂ emissions
83	SDG Dashboards	https://dashboard.s.sdgindex.org/#/	Sustainability/ Sustainable Development Goals (SDGs)	Interactive online map	Sustainable Development Solutions Network / Bertelsmann Stiftung 2019	A fantastic interactive map showing the current status of each country's progress towards the individual SDGs, with data on the targets for each SDG, as well as an overall country index, all based on the Sustainable Development Report 2019. Map grades countries on a colour-coded key depending on their progress. SDGs are displayed as images at the side of the map to allow ease of moving between goals, with each country easily labelled on the map. When a goal and country pairing is selected, further graphically-represented data on this pairing appears. It is such an accessible, well-built tool that increases understanding of SDGs and their progress, engaging people who may otherwise have felt the subject too daunting to approach.	primary school pupils, secondary school pupils, university students, primary school teachers, secondary school teachers, university lecturers, business & industry, government, NGOs	Information on one goal/one country quickly accessed in minutes. Could be used just for 5 or 10 minutes in class, but opportunity for in-depth research over hours/days	Beginner	English	The map could be used on individual student devices for free exploring, or taught from a central screen with students giving input in a classroom setting.
84	SDG Resources for Educators - Industry, Innovation and Infrastructure	https://en.unesco.org/themes/education/sdgs/material/09	Sustainability/ Sustainable Development Goals (SDGs)	Videos, Presentations, Worksheets and Case Studies (that can all be downloaded as one single PDF)	UNESCO 2019	Teaching resource designed for educators that provides up-to-date info on SDG9: Industry, Innovation and Infrastructure. It has a number of classroom activities (clearly marked for what age range they are for) and multimedia educational resources to access and download. Videos show up-to-date case studies with real life examples. For example, there is the "Monsoon Proof Roof" activity aimed for kids aged 9-11. In addition, there are also materials and case studies for children ages 14-17. There are also project ideas for older people. Resources are easy to navigate and understand,	primary school pupils, secondary school pupils, university students, primary school teachers, secondary school teachers, university lecturers, business & industry, NGOs	1-3 hours approx	Beginner Intermediate	English French Spanish	Interactive games and case studies can be printed off and worked through in groups.

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85	SDGs in Action app	https://www.un.org/sustainabledevelopment/blog/2016/09/new-mobile-app-launches-to-drive-action-on-sustainable-development-goals/	Sustainability/ Sustainable Development Goals (SDGs)	It is an app - available for iOS or Android devices.	United Nations, in collaboration with GSMA 2017	An app that provides information and case studies on all 17 SDGs, including targets, explanatory videos, key facts and figures, alongside a picture gallery. This dynamic, collaborative tool includes the latest sustainable development news from around the world. The app includes features such as sharing, likes, scoring designed to drive engagement with the app. Users can tailor their experience based on the SDGs that interest them most. The app is up-to-dated and easy to use, and self explanatory once you have logged in. The app also tells you what you personally can do to create impact and how to take action to help others accelerate progress. You can choose what goals are important to you, create your own events and actions and invite others to join you in sustainable actions and events.	secondary school pupils, university students, secondary school teachers, university lecturers, business & industry, NGOs	Could spend as long as you want. Videos average at 1.5 minutes.	Beginner Intermediate	English, Arabic, French, Russian, Simplified Chinese, Spanish.	Group work - the app allows you to create an 'action' - this could be done as a group task in the classroom, with previous examples being given on the app. Presentations could be done on what the action is and why groups chose to do such actions.
86	Sustainability explained	https://www.youtube.com/watch?v=_5r4loXPx8	Sustainability/ Sustainable Development Goals (SDGs)	video	explainity® explainer video 2012	Video explains sustainability and why is it so important. Uses the three pillar model of sustainability: environmental, economic and social considerations. It is visually interesting using with cartoon like characters and animations.	primary school pupils, secondary school pupils	4 minutes	Beginner Intermediate	English + subtitles: Bulgarian, Latvian, Macedonian, Polish, Romanian	Show video in class, followed by discussion.
87	Sustainable Development Goals Quiz	https://www.research.net/r/WHO_SDG_Quiz	Sustainability/ Sustainable Development Goals (SDGs)	Multiple Choice Quiz - 17 questions	World Health Organisation (WHO) - European region. 2019	Quiz has 17 questions testing understanding of the 17 SDGs. Quiz is specifically targeted at the WHO European region. Quiz is interesting in that it provides justification for the need for the SDGs through various statistics (for each corresponding SDG) in the European region. Also provides links to relevant fact sheets which explain in further detail the statistics and needs for each SDG.	secondary school pupils, university students, secondary school teachers, university lecturers	30 minutes	Intermediate	English	A teacher or lecturer could collaboratively complete the quiz with their pupils, which would be engaging and interesting for the class.
88	Take the quiz: How much do you know about the SDGs?	http://17goals.org/quiz-level-1/	Sustainability/ Sustainable Development Goals (SDGs)	An interactive quiz with feedback.	17Goals 2015	A 10-question quiz which focuses on the SDGs and their targets. Useful for testing knowledge and interesting information is conveyed in it. Although the quiz itself is short, doing it could lead to people clicking on the other resources to find out more.	primary school pupils, secondary school pupils, university students,	10-15 minutes	Beginner Intermediate	English	Go through questions on an interactive whiteboard.

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89	The Story of Stuff Project	https://storyofstuff.org/	Sustainability/ Sustainable Development Goals (SDGs)	There are videos, blog posts, case studies as well as podcasts.	Annie Leonard (Founder) 2020	Online organisation and resource dedicated to sustainability. The website currently features 16 videos on various topics like bottled water, electronics, cosmetics, microfibers, case studies and more. Plus links are available so people can take action on topics that they feel strongly about. The Story of Stuff Project started due to the online viral sensation of The Story of Stuff video in 2007.	primary school pupils, secondary school pupils, primary school teachers, secondary school teachers	20-30 minutes	Beginner	English	Play videos in the class, followed by discussion.
90	The Sustainable Development Goals - Action Towards 2030	https://www.youtube.com/watch?v=9-xdy1Jr2eg	Sustainability/ Sustainable Development Goals (SDGs)	YouTube video	CAFOD Catholic Agency for Overseas Development 2016	Video explains the 17 SDGs and the four underlining principles. 1. they are universal and apply to every country. 2. integrate all dimensions of sustainability: economic development, social progress, and environmental protection. 3. leave no one behind. 4. require the participation of all. Video contains information about the Millennium Development Goals (MDGs).	secondary school pupils, university students, primary school teachers, secondary school teachers	5 minutes and 52 seconds	Beginner	English	Show video in class, followed by discussion.
91	The Sustainable Development Goals: A guide for teachers	https://oxfamilibrary.openrepository.com/bitstream/handle/10546/620842/edu-sustainable-development-guide-15072019-en.pdf?sequence=4	Sustainability/ Sustainable Development Goals (SDGs)	PDF report available online	Oxfam 2019	Clearly written guide designed to support educators who work with young people to learn about SDGs. Gives practical ideas for implementing the SDGs into a school curriculum in many different ways (and for different subjects - e.g. maths, geography). Contains further reading, support, data and websites. Good use of case studies from projects and school initiatives.	primary school teachers, secondary school teachers	Depends of activity.	Beginner Intermediate	English	Follow activities given. Also contains a section on how to link to curriculum in various countries.
92	The Unbearable Whiteness of Green Workshop Resources	https://onca.org.uk/2019/05/26/the-unbearable-whiteness-of-green-workshop-learning-resources/	Sustainability/ Sustainable Development Goals (SDGs)	Selection of articles, books, websites and videos related to the topics of environmentalism and racism.	ONCA Gallery. Brighton, UK 2020	Social Justice is a fundamental part of the Climate Emergency that sometimes is left behind when scientists and engineers address Sustainability. This reading list gives a different insight of sustainability. Web page has links to papers about sustainability and social justice. Tackles and important issue from a different perspective. It is a great resource to question preconceived ideas and hear different perspectives targeted to other audiences. Good link to human geography.	university students, university lecturers, NGOs	5 hours	Advanced	English	Reading list could be used to prepare a workshop, e.g. discussion on how our own backgrounds affect how we approach Climate Change.

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93	The Worlds Largest Lesson Animated Films	http://worldslargestlesson.globalgoals.org/animated-films/	Sustainability/ Sustainable Development Goals (SDGs)	They are 3 mini animated films (videos)	WHO, UNICEF, UNESCO 2015	The Worlds Largest Lesson provides learning plans and creative tools for teachers for primary and secondary school children in terms of SDGs. One of these resources is the Animated Films, which describe SDGs in a short period of time. These three animated films are really interesting, they provide a lot of information on the SDGs for younger people and could help them understand why the SDGs are so important. The animated films are easy to follow and could be presented to the class as part of a lesson. There are also videos presented by famous people, such as Emma Watson and Serena Williams, which may make children listen more as they are more widely known.	primary school pupils, secondary school pupils, primary school teachers, secondary school teachers,	about 5 min for each film	Beginner Intermediate	Arabic Bangla Chinese English English (India) French German Greek Gujarati Hindi Indonesian Portugues Russian Spanish Tamil Telegu	Films could be presented in the classroom, or given as an extra resource for children to look at outside of class.
94	UN Sustainability Goals	https://www.un.org/sustainabledevelopment/sustainable-development-goals/	Sustainability/ Sustainable Development Goals (SDGs)	Web page	United Nations 2020	Web page with a user friendly and attractive interface describing in detail the 17 SDGs. Each goal has a brief description and its importance. There are then three tabs: Facts & Figures, Targets and relevant links. On a tile for each goal it displays a quick snapshot of how the UN is achieving that goal and a fact to emphasise its importance. This informs the user of the actions being taken by the UN.	secondary school pupils, university students, secondary school teachers, university lecturers, business & industry, NGOs	2 hours	Intermediate	English	Good infographics which effectively explain SDGs. A lot of readily available facts & figures for presentations too.
95	Understanding Sustainable Living	http://cdn.worldslargestlesson.globalgoals.org/2016/06/Understanding-Sustainable-Living.pdf	Sustainability/ Sustainable Development Goals (SDGs)	Lesson plan explaining the concept of sustainability.	Trayle Venus Kulshan, Raffles World Academy, Dubai 2015	Document aimed at explaining sustainability and more specifically SDG11: Make cities and human settlements inclusive, safe, resilient and sustainable. Contains several activities such as calculating ecological footprint, questions for students and discussion topics for the class. Includes resources for the different class activities and specifies time each activity should take. Resource is ready to give to students with tasks already defined.	primary school pupils, secondary school pupils, primary school teachers, secondary school teachers	Depends of activity.	Beginner Intermediate	English	In groups, work in activities provided.

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96	Understanding the Dimensions of Sustainable Development	https://www.youtube.com/watch?v=pgNLonYOc9s	Sustainability/ Sustainable Development Goals (SDGs)	YouTube video	Simpleshow 2017	Video explains the 2030 Agenda and its 17 SDGs, and the commitment of the world community to ensure sustained and economic growth, social inclusion and environmental protection. It is a good video that is encouraging, entertaining and educational.	primary school pupils, secondary school pupils, university students	4 minutes	Beginner Intermediate	English	Show video in class, followed by discussion
97	What is Sustainable Development?	https://www.youtube.com/watch?v=3WODX8fyRHA	Sustainability/ Sustainable Development Goals (SDGs)	YouTube video	United Nations 2015	Interesting video is about sustainable development, SDGs, and strategies, methods and advances related to the same. Video is really well made and fulfils its purpose to educate people and inform them about sustainable development, why sustainable development is necessary, and reasons and advantages of setting SDGs.	secondary school pupils, secondary school teachers	2 minutes and 8 seconds	Beginner	English (captions in many languages including Bulgarian, Latvian, Macedonian, Polish and Romanian)	Show video in class, followed by discussion
98	World Economic Forum Platform: Shaping the Future of Global Public Goods	https://www.weforum.org/platforms/shaping-the-future-of-global-public-goods	Sustainability/ Sustainable Development Goals (SDGs)	Reports, Case studies, and Videos.	World Economic Forum 2020	This platform offers a wide variety of case studies and examples of projects carried out by organisations, as well as key reports and videos. The aim is to encourage the public and private sectors, as well as civil society to engage in sustainability issues and the CE to accelerate actions on climate change. Resource full of interesting videos and reports that offer great insight into opportunities for change. If small businesses also engage in this platform could motivate them to seek out sustainable opportunities or partnerships in their communities or cities to help bring sustainability to the forefront.	secondary school pupils, university students, secondary school teachers, university lecturers, business & industry, government, NGOs	Reports: 30 minutes. Videos: 2 minutes.	Intermediate Advanced	English French Japanese Spanish	Videos, projects and case-studies are a great supplementary information to teaching materials.
99	WWF Footprint Calculator	https://footprint.wf.org.uk/#/	Sustainability/ Sustainable Development Goals (SDGs)	Quiz	WWF 2020	Calculates your carbon footprint based on four life aspects - food, travel, home and "stuff". It then compares your results to the national average and shows the aspects you could improve on the most. It also gives tips for each of the areas to help you lower your footprint. The resource is good for getting an idea of how much carbon you produce. However, some of the questions are potentially too complex for younger children as they required knowledge of types of housing and insulation etc. The	secondary school pupils, university students, secondary school teachers, university lecturers	15 minutes	Intermediate	English	Allow the students to take the quiz and then discuss what their largest carbon outputs are and how they could reduce these.

No	Title online teaching resource	Web link (and reference if applicable)	Main theme	Type online resource (e.g. video, quiz, game)	Author and year	Summary and review in terms of interest, clarity, fun, content	Key target audience	Time to read or do	Level of difficulty or complexity	Language	Ideas for use in classroom
						comparison of your carbon footprint to the world average is interesting. The tips for decreasing the footprint were relatively basic, e.g. 'Cycle More' and are perhaps unrealistic for a lot of people.					
100	What is sustainable development?	https://www.youtube.com/watch?v=7V8oF14GYMY	Sustainability/ Sustainable Development Goals (SDGs)	YouTube video	Animaskin on behalf of UN Association of Norway & UNICEF Norway, 2017	A simple introduction to sustainable development and the SDGs. The film is produced by Animaskin on behalf of UN Association of Norway and UNICEF Norway, as part of an interdisciplinary learning program for students on primary and secondary level. A very beautiful film that will appeal to the students.	primary school pupils, secondary school pupils	3 minutes and 40 seconds	Beginner	English Norwegian	Show video in class, followed by discussion