World Toilet Day 2019

A RESOURCE PACKET FOR EDUCATORS

COMPiled by:
Ryan Hauck, Ryan Quinn, Melina Schmidt and Alice Tetley
Global Classroom Teacher’s Workshop - November 26th
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Using This Resource Guide
NOTE: Many of these descriptions were excerpted directly from the source website

Recommended Resource

Visual Media

Lesson Plan

Audio

English/Language Arts

Charts and Graphs

Fast Fact/Did You Know?

Articles

Find this packet and more at world-affairs.org/program/global-classroom
GLOBAL CLASSROOM WANTS TO KNOW HOW YOU HAVE USED THIS RESOURCE PACKET IN YOUR CLASSROOM!
EMAIL GC@WORLD-AFFAIRS.ORG
Lesson Objectives

1. Students will be able to identify and evaluate the factors (political, economic, social, etc.) that contribute to a lack of sanitation services in various communities around the world.

2. Students will be able to identify the individual and communal challenges (or consequences) that arise due to a lack of sanitation services.

3. Students will be able to develop and evaluate courses of action that address sanitation issues world-wide.

4. Students will be able to identify and describe the interconnected challenges related to water, sanitation, and hygiene.

5. Students will be able to identify and describe the role of local, national, and international organizations and their work to provide access to sanitation resources world-wide.

6. Students will be able to explain the purpose of Sustainable Development Goal #6 (SDG) and evaluate its progress in providing clean water and sanitation for all communities.

7. Students will be able to identify, research, and critique different technologies and their effectiveness in addressing sanitation challenges.
A Note on Learning Standards Presented in this Packet:

Three sets of standards have been linked to each of the learning objectives in this packet. The Washington State K-12 Social Studies Learning Standards and the accompanying Grade Level Requirements are the social studies standards for WA State.


Cross-objective standards are listed at the beginning of the packet, and content-specific standards can be found after each learning objective.

The standards provided have been selected for relevance, but are not exclusive: many other standards, such as Common Core, may be applicable to the resources and learning objectives identified in this packet. The intention for this packet’s organization is to provide educators with an idea of resources available and possible uses for resources. Users should feel free to create their own learning objectives and to select resources according to the specific needs of their classrooms.

WASHINGTON STATE K-12 SOCIAL STUDIES LEARNING STANDARDS

There are five EALRs in Social Studies, one for each of the discipline areas: civics, economics, geography, and history, and a fifth for social studies skills.

(1) Social Studies EALR 1: CIVICS

The student understands and applies knowledge of government, law, politics, and the nation’s fundamental documents to make decisions about local, national, and international issues and to demonstrate thoughtful, participatory citizenship.

(2) Social Studies EALR 2: ECONOMICS

The student applies understanding of economic concepts and systems to analyze decision-making and the interactions between individuals, households, businesses, governments, and societies.

(3) Social Studies EALR 3: GEOGRAPHY

The student uses a spatial perspective to make reasoned decisions by applying the concepts of location, region, and movement and demonstrating knowledge of how geographic features and human cultures impact environments.

(4) Social Studies EALR 4: HISTORY

The student understands and applies knowledge of historical thinking, chronology, eras, turning points, major ideas, individuals, and themes on local, Washington State, tribal, United States, and world history in order to evaluate how history shapes the present and future.

(5) Social Studies EALR 5: SOCIAL STUDIES SKILLS

The student understands and applies reasoning skills to conduct research, deliberate, and form and evaluate positions through the processes of reading, writing, and communicating.
The C3 Framework is organized into the four Dimensions, which support a robust social studies program rooted in inquiry.

The four Dimensions are as follows:

(1) Developing questions and planning inquiries;
(2) Applying disciplinary concepts and tools;
(3) Evaluating sources and using evidence;
(4) Communicating conclusions and taking informed action

<table>
<thead>
<tr>
<th>DIMENSION 1: DEVELOPING QUESTIONS AND PLANNING INQUIRIES</th>
<th>DIMENSION 2: APPLYING DISCIPLINARY TOOLS AND CONCEPTS</th>
<th>DIMENSION 3: EVALUATING SOURCES AND USING EVIDENCE</th>
<th>DIMENSION 4: COMMUNICATING CONCLUSIONS AND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing Questions and Planning Inquiries</td>
<td>• Civics</td>
<td>• Gathering and Evaluating Sources</td>
<td>• Communicating and Critiquing Conclusions</td>
</tr>
<tr>
<td></td>
<td>• Economics</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Geography</td>
<td>• Developing Claims and Using Evidence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• History</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dimension 2 has four disciplinary subsections: (1) Civics; (2) Economics; (3) Geography; (4) History. Each disciplinary subsection has three to four additional categories, which provide an organizing mechanism for the foundational content and skills within each discipline.

<table>
<thead>
<tr>
<th>CIVICS</th>
<th>ECONOMICS</th>
<th>GEOGRAPHY</th>
<th>HISTORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civic and Political Institutions</td>
<td>Economic Decision Making</td>
<td>Geographic Representations: Special Views of the World</td>
<td>Change, Continuity, and Context</td>
</tr>
<tr>
<td>Participation and Deliberation: Applying Civic Virtues and Democratic Principles</td>
<td>Exchange and Markets</td>
<td>Human-Environment Interaction: Place, Religions, and Culture</td>
<td>Perspective</td>
</tr>
<tr>
<td>Processes, Rules, and Laws</td>
<td>The National Economy</td>
<td>Human Populations: Spatial Patterns and Movements</td>
<td>Historical Sources and Evidence</td>
</tr>
<tr>
<td>The Global Economy</td>
<td></td>
<td>Global Interconnections: Changing Spatial Patterns</td>
<td>Causation and Argumentation</td>
</tr>
</tbody>
</table>
EDUCATING FOR GLOBAL COMPETENCE


“Global competence is the capacity and disposition to understand and act on issues of global significance” (Chapter 2).

Globally competent students are able to perform the following four competences:

1. **Investigate the world** beyond their immediate environment, framing significant problems and conducting well-crafted and age-appropriate research.
2. **Recognize perspectives**, others’ and their own, articulating and explaining such perspectives thoughtfully and respectfully.
3. **Communicate ideas** effectively with diverse audiences, bridging geographic, linguistic, ideological, and cultural barriers.
4. **Take action** to improve conditions, viewing themselves as players in the world and participating reflectively.
Key Terms

**Improved and Unimproved sanitation**: Both of these terms form part of the JMP (see below) categorization of types or levels of sanitation. Improved sanitation includes flush toilets, pit latrines with slab, composting toilets, etc. Unimproved sanitation includes public or shared latrines, bucket latrines, open defecation, etc.

**Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP)**: A World Health Organization/UNICEF programme which reports country, region, and global estimates of progress on drinking water, sanitation, and hygiene and has done since 1990.

**WASH**: An acronym that stands for water, sanitation and hygiene. Grouped together for convenience and frequently used by the UN and UNICEF.

**Wastewater**: Term which incorporates any water which has been affected by human use including domestic, industrial and commercial activities.

**World Toilet Organization**: An international non-profit with a focus on improving toilet and sanitation conditions globally. It was founded in 2001 by Jack Sim.

**Sanitation**: Term refers to the provision of facilities and services for the safe management of human excreta. More broadly, the term sanitation includes the safe management of solid waste and animal waste.

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A Note on Articles and Paywalls

Some of the resources found within this packet require a subscription or other payment in order to be viewed. If you do not have free access to these resources through your home institution, you may be able to access them through the University of Washington’s borrowing program for educators. To find out how to utilize this program, please follow the link below:

[http://www.lib.washington.edu/services/borrow/card/eligible](http://www.lib.washington.edu/services/borrow/card/eligible)
Section 1: What is World Toilet Day?

World Toilet Day 2019: Leaving No One Behind
https://www.worldtoiletday.info/
The official World Toilet Day website which includes links to resources and information about relevant events.

World Toilet Day 2019: Background
United Nations webpage which explores the background to World Toilet Day, which was designated as the 19th November by the United Nations General Assembly.

What in the World is World Toilet Day
https://www.youtube.com/watch?v=fvEC7keAJgc
A very informative short animation which introduces World Toilet Day and the problems it hopes to address.

World Toilet Day
https://www.cdc.gov/healthywater/observances/world-toilet-day.html
The Centers for Disease Control and Prevention introduction to World Toilet Day. Website includes many useful links for the understanding and promotion of World Toilet Day.

World Toilet Day, Message from the UN Deputy Secretary-General
https://www.youtube.com/watch?v=Ww_B0mvGiYc&list=UU5O114-PQNYkurlTg6hekZw&index=2
A video from 2013 featuring the UN Deputy Secretary General discussing the importance of sanitation and, therefore, World Toilet Day.

World Toilet Organization: Our Story
http://worldtoilet.org/our-story/
An introduction to the World Toilet Organization, the non-profit which established World Toilet Day and the World Toilet Summit in 2001, and their mission to build global sanitation solutions.

Meet Mr. Toilet
https://vimeo.com/34792993
Short video introducing Jack Sim, the founder of the Restroom Association of Singapore, the World Toilet Organization, the World Toilet Day initiative, and Bottom of the Pyramid Hub.
World Toilet Day Puts Spotlight on Sanitation Crisis
https://www.youtube.com/watch?time_continue=2&v=QE_QeAQjTE&feature=emb_title
A short TIME video which introduces World Toilet Day and its role in the sanitation crisis.

World Toilet Day - Where You Go, Matters
https://www.youtube.com/watch?time_continue=2&v=QE_QeAQjTE&feature=emb_title
Video from the Ministry of the Environment and Water Resources which considers World Toilet Day and why it is important.

Rethinking Shit
https://www.rethinkingschools.org/articles/rethinking-shit-excrement-and-equity
An article from the point of view of an educator, discussing how to change their students’ approach to ‘shit’ and thereby help to tackle the global sanitation crisis.

Jack Sim, the founder of the World Toilet Organization and the World Toilet Day initiative.

Section 2: How common is lack of access to sanitation?

One in Three People Lack Access to Proper Sanitation
Population (millions) without improved sanitation by region and year

- Southern Asia
- Southeastern Asia
- Sub-Saharan Africa
- Latin America and the Caribbean
- Eastern Asia
- Other regions

Global

2004 = 2.6 billion
2015 = 2.4 billion

https://www.un.org/waterforlifedecade/sanitation.shtml
The United Nations update on access to sanitation, prevalent types of sanitation (e.g. basic, unimproved), and what initiatives the UN are involved with to help raise the issue globally.

11 Key Lessons About Water, Sanitation and Hygiene in Schools
https://www.unicef.org/stories/11-lessons-water-school
In this article, UNICEF provides some key facts about WASH in schools. For example: globally only 66 per cent of schools have basic sanitation services.

Lack of Safe Water, Sanitation and Soap ‘an embarrassment’, Says WHO
Guardian article into the lack of clean water and basic sanitation in health care facilities in low- and middle- income countries.

Drinking Water, Sanitation and Hygiene in Schools: Global Baseline Report 2018
https://data.unicef.org/resources/wash-in-schools/
Extensive report into the availability and use of WASH facilities in schools worldwide, along with why they are fundamental to childhood development and education.

Lesson Plan
https://thewaterproject.org/resources/lesson-plans/water-water-anywhere
Lesson designed to teach students the reality of water scarcity and the difficulty in allocating water as a resource.
The global population practising open defecation is slowly declining

Figure 5. Open defecation trends in developing regions and the world, 1990–2011.

https://www.un.org/waterforlifedecade/sanitation.shtml

https://ourworldindata.org/water-use-sanitation

Number of people without access to improved sanitation facilities

The total number of people with and without access to an improved sanitation facility by region. Improved sanitation facilities include flush/pour flush (to piped sewer system, septic tank, pit latrine), ventilated improved pit (VIP) latrine, pit latrine with slab, and composting toilet.

Source: OurWorldInData based on World Bank, World Development Indicators
OurWorldInData.org/water-access-resources-sanitation/ • CC BY-SA
Water Use and Sanitation
https://ourworldindata.org/water-use-sanitation
A series of maps, graphs, and charts providing information on water sources, freshwater use, irrigation, and, importantly for World Toilet Day, progress on sanitation.

Sanitation: Key Facts
https://www.who.int/news-room/fact-sheets/detail/sanitation
The World Health Organization’s key facts on global sanitation, with further reference to how health and sanitation are related.

Billions Globally Lack ‘water, sanitation and hygiene’, New UN Report Spells Out
Article into a recent Joint Monitoring Programme report which found gaps in the quality of services being provided.

2.1 Billion People Lack Safe Drinking Water at Home, More than Twice as Many Lack Safe Sanitation
A World Health Organization article into the Sustainable Development Goals and the WASH inequalities that continue despite the commitment to good hygiene and sanitation.

People Using Safely Managed Sanitation Services (% of population)
https://data.worldbank.org/indicator/SH.STA.SMSS.ZS
Interactive data sets from the World Bank which consider the percentage of every country, and the world as a whole, using safely managed sanitation services. Also provides information as to how this percentage has changed since 2000.

Improved Sanitation Facilities (% of population with access) - Country Ranking
https://www.indexmundi.com/facts/indicators/SH.STA.ACSN/rankings
Website which considers how 189 countries rank in terms of the percentage of their population using ‘improved’ sanitation facilities. Includes links which provide country specific information.

Lesson Plans
http://www.wateraidgames.org/angryturds
Play ‘Angry Turds’ with the students, a game designed in co-ordination with Wateraid to spread awareness of the extent of unimproved sanitation.

This set of lesson plans introduces middle school age children to the idea of human rights in the context of basic sanitation.

Fast Facts
- 4.5 billion people live without a safe toilet and 673 million people still practice open defecation.
- One fifth of schools worldwide do not provide any toilet facilities.
Case Study: Cambodia

Sanitation for a Better Cambodia: The Cambodia Rural Sanitation and Hygiene Improvement Program (CR-SHIP)
A report on CR-SHIP, a Cambodian program aiming to improve sustainable and consistent use of WASH facilities within the country.

Cleaning Up Cambodia’s Toilet Problem
Article discussing the sanitation situation in Cambodia with reference to its effects on child mortality. Includes a discussion of potential solutions such as ‘hands-off sanitation marketing’ whereby local businesses pay for their toilets and, as a result, feel a sense of ownership and prestige.

Water, Sanitation and Hygiene (WASH)
http://www.wpro.who.int/cambodia/topics/water_sanitation/en/
Brief article into WASH in Cambodia and the continuing inequalities in sanitation between urban and rural areas.

World Toilet Day: Growing Momentum for Sanitation in Cambodia
Al Jazeera article into sanitation in Cambodia and how attitudes towards toilets are changing.

Cambodia
https://water.org/our-impact/cambodia/
A brief overview of the sanitation crisis in Cambodia and how Water.org is helping to expand access to safe sanitation facilities.

https://lifewater.org/blog/cambodia-water-crisis/

2 Million
without clean water

6 Million
without safe sanitation
Case Study: South Sudan

Water, Sanitation and Hygiene (WASH)
UNICEF article into just how scarce access to adequate water facilities is in South Sudan.

Water and Sanitation in South Sudan: What Needs to be Done to Bridge the Gap?
An article from the South Sudan Medical Journal into what needs to be done in South Sudan to challenge its extensive WASH problem.

South Sudan
https://www.communityledtotalsanitation.org/country/south-sudan
Article by Community-led Total Sanitation into the Sudanese sanitation problem and its context. Includes a discussion of the success of this non-profit in targeting the problem.

How Simple Toilets and Sanitation are Saving Lives in South Sudan
Discussion of the sanitation problem facing South Sudan and what Oxfam has been doing to challenge it.
No invention has saved more lives than a toilet. Billions still lack one. Lack of sanitation is the world’s biggest cause of infection. All of this — entirely preventable. You can help.

Visit Water.org or Toiletday.org to learn about this issue and ways you can help.
Section 3: Why is safe, clean sanitation important?

1: Disease and nutrition

Water, Sanitation and Hygiene
https://www.unicef.org/wash/index_wes_related.html
A list of common water and sanitation-related diseases.

Diarrheal Disease Solutions: WASH
https://report.defeatdd.org/wash/
Defeat Diarrheal Diseases report which considers WASH solutions to the diarrheal disease epidemic.

Preventing Diarrhoea Through Better Water, Sanitation and Hygiene
https://apps.who.int/iris/bitstream/handle/10665/150112/9789241564823_eng.pdf;jsessionid=87D9386128B9163263DAB93A243C8451?sequence=1
Report based on scientific literature on the medical burden of diarrhoea resulting from inadequate water, sanitation, and hygiene.

Lack of Water, Sanitation and Hygiene (WASH) and its Effect on Nutrition
https://www.youtube.com/watch?v=di2Yxd9cA1U
Short video by the Sustainable Sanitation Alliance on why sanitation is important and how a lack of sanitation is linked to disease and malnutrition.

The Impact of Poor Sanitation on Nutrition
Thorough report into the impact of poor sanitation on nutrition and physical development in children.

Why the Lack of Toilet is Killing Millions
https://www.youtube.com/watch?v= _B6g92hRzXc&feature=emb_title
A short video into how the lack of sanitation affects millions worldwide.

Lesson Plan
https://static1.squarespace.com/static/563a8427e4b02d05f44d829d/t/564ce8d2e4b0e4c59118f59a/1447880914071/classroom+activity%3B+science+1+-+4+Heath+disease+transmission.pdf
Lesson which aims to give students experience of the ways that disease can transfer.
Improving Nutrition Outcomes with Better Water, Sanitation and Hygiene
Extensive report into the influence of poor WASH on nutrition and the interventions necessary to prevent disease and improve nutritional status.

Unique Urban Sanitation Issues
http://www.uniteforsight.org/urban-health/module4
A consideration into how urban poverty and poor sanitation are related, and the resultant health hazards that this intersection of problems causes.

Shared Sanitation and the Prevalence of Diarrhea in Young Children: Evidence from 51 Countries, 2001-2011
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4080558/
Medical study into the causal relationship between shared ‘unimproved’ sanitation and diarrhoea among children.

How to Observe World Toilet Day—A Crash Course on Sanitation
https://www.globalcitizen.org/en/content/world-toilet-day-sanitation-water-poop/
An article about World Toilet Day and why sanitation is important to prevent the spread of microbes and disease.

Lesson Plans
https://thewaterproject.org/resources/lesson-plans/hand-washing-hangups
Lesson plan to show the importance of hygiene and sanitation training in water improvement projects.

http://cdn.worldslargestlesson.globalgoals.org/2016/06/14-Clean-Water-for-All.pdf
Lesson plan to help students understand water pollution, its causes, and the global inequality of access to clean water.

This set of lesson plans introduces younger students to the significance of toilets in staying healthy.

This lesson plan from the Gates Foundation considers different methods of sanitation across the world and their importance.
FOUR OF THE TOP FIVE COUNTRIES WITH THE LARGEST NUMBER OF THE WORLD’S STUNTED CHILDREN ARE IN ASIA.

NUMBER OF STUNTED CHILDREN UNDER AGE 5

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of Stunted Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>61.7 Million</td>
</tr>
<tr>
<td>Nigeria</td>
<td>11.0 Million</td>
</tr>
<tr>
<td>Pakistan</td>
<td>9.7 Million</td>
</tr>
<tr>
<td>China</td>
<td>8.1 Million</td>
</tr>
<tr>
<td>Indonesia</td>
<td>7.5 Million</td>
</tr>
</tbody>
</table>

STUNTING PREVALENCE

<table>
<thead>
<tr>
<th>Country</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>48%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>41%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>44%</td>
</tr>
<tr>
<td>China</td>
<td>10%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>36%</td>
</tr>
</tbody>
</table>

1 IN 4
GLOBAL SHARE OF CHILDREN UNDER 5 WHO ARE STUNTED

860K
ANNUAL DEATHS OF CHILDREN UNDER 5 FROM MALNUTRITION

2.5 BILLION
PEOPLE LACK ACCESS TO IMPROVED SANITATION

2: For gender equality

We Can’t Wait: A Report on Sanitation and Hygiene for Women and Girls
An extensive report into the effect of poor sanitation on women and girls. The report has found that improved sanitation: ensures better birth survival rates; provides more privacy for girls when they are menstruating; prevents sexual violence; and keeps women and girls in their places of work or education.

Safe Water and Basic Sanitation Would Slash Maternal Deaths, Report Says
https://www.theguardian.com/global-development/2014/dec/16/safe-water-sanitation-maternal-deaths
Guardian article into how the number of deaths from childbirth complications could be reduced if access to water and sanitation facilities was improved.

4 Reasons Water and Sanitation are a Gender Issue
https://www.globalcitizen.org/en/content/4-reasons-water-and-sanitation-are-a-gender-issue/
A Global Citizen article discussing how women and girls are affected by lack of water and sanitation.

It’s Time we Focus on Women’s Access to Better Sanitation Facilities
https://yourstory.com/mystory/5331941b32-it-s-time-we-focus-on
Article considering the problems faced by women lacking adequate sanitation, specifically in India.
Gender, Women and Sanitation
Extensive study into how women and girls are especially affected by inadequate sanitation and how this inequality manifests itself.

Gender Equality in the 2030 Agenda
UN report into WASH as a gender-based issue.

India Bihar Rapes ‘caused by lack of toilets’
BBC article on the assault of women and girls in India’s Bihar state, with comments by senior police officials on how indoor toilets might have changed the prevalence of rape in the area.

Violence, Gender and WASH: a Practitioners’ Toolkit. Making Water, Sanitation and Hygiene Safer Through Improved Programming
Humanitarian Practice Network website considering how violence against women is related to lack of access to water, sanitation and hygiene.

India’s Sanitation Crisis Is Trapping Women In A Cycle of Violence
Forbes article into sanitation facilities in India and how the lack of such facilities affects women.

Poor WASH conditions have significant costs on well-being

17.4 minutes – average time households spend to reach their water source, collect water, and come back home

81% of water collection trips take place on foot

Responsibility for fetching water falls primarily on women (63%) and young girls (15%)

4.19 trips household members take to fetch water on a typical day

AN ESTIMATED SEVENTEEN MILLION

Number of people in Vietnam who do not have access to a clean, safe toilet.

1/3 of deaths among children under five are caused by limited sanitation services, unsafe water and poor hygiene practices.

Unsafe sanitation puts women and children at risk for assault.

The lack of sanitation contributes to 1.5 million deaths from diarrheal diseases among children under five each year across the globe.

3: For education

The Impact of a Toilet: A Family Story
https://www.youtube.com/watch?v=8dnKTxFbroI
Short video into how building a toilet helped one family in Bihar, India.

Water, Sanitation and Hygiene in Schools
https://www.unicef.org/wash/index_schools.html
UNICEF website discusses the importance of having WASH facilities in schools, particularly in reference to female education.

Schools
https://washdata.org/monitoring/schools
A JMP report into WASH facilities in schools and how widespread they are. Touches on how the lack of such facilities affects childhood development.

Sanitation and Education: How Poor Conditions Keep Children Out of School
https://lifewater.org/blog/sanitation-education/
Article into the link between sanitation and education.

What does Sanitation and Hygiene have to do with Education?
Short film into a sanitation program run by Oxfam in West Mosul to ensure children have safe and sanitary environments to continue their schooling.

Sanitation and Education
Academic article into the relationship between school-sanitation and educational attainment.

SAFE SANITATION IS ESSENTIAL FOR HEALTH AND DEVELOPMENT

WE BELIEVE EVERYONE SHOULD HAVE ACCESS TO A CLEAN, SAFE TOILET. THAT’S WHY WE SUPPORT SUSTAINABLE DEVELOPMENT GOAL 6, WHICH INCLUDES A TARGET ON ADEQUATE AND EQUITABLE ACCESS TO SANITATION. ACHIEVING THIS WILL ACCELERATE PROGRESS AGAINST OTHER GOALS, INCLUDING ENDING HUNGER, PROMOTING GENDER EQUALITY AND IMPROVING HEALTH AND WELL-BEING.

IMPROVING HEALTH
EVERY 2 MINUTES A CHILD DIES OF DIARRHEAL DISEASES WHICH COULD BE PREVENTED BY IMPROVED WATER, SANITATION AND HYGIENE (WASH)

BETTER EDUCATION
443 MILLION SICK DAYS ARE TAKEN BY CHILDREN EVERY YEAR BECAUSE OF MALARIA-RELATED DISEASES

NUTRITION
IN 2014, 159 MILLION CHILDREN WORLDWIDE WERE STUNTED DUE TO MALNUTRITION. ONE OF THE MAIN CAUSES IS MALARIA-RELATED DISEASE LIKE DIARRHEA THAT PREVENT THE PROPER ABSORPTION OF NUTRIENTS FROM FOOD

REDUCING INEQUALITY
THE BURDEN OF POOR SANITATION FALLS DISPROPORTIONATELY ON WOMEN, CHILDREN, THE ELDERLY AND THE DISABLED

ECONOMIC GROWTH
SOME COUNTRIES LOSE AS MUCH AS 7% OF GDP BECAUSE OF INADEQUATE SANITATION, WITH WATER-RELATED DISEASES CAUSING MISSED DAYS OF WORK DUE TO ILLNESS OR CARING FOR SICK RELATIVES

GLOBAL, ECONOMIC LOSSES ASSOCIATED WITH INADEQUATE WATER SUPPLY AND SANITATION ARE US$260 BILLION ANNUALLY, EQUIVALENT TO THE GDP OF CHILE

GENDER EQUALITY
HUNDREDS OF MILLIONS OF WOMEN AND GIRLS AROUND THE WORLD FACE DISEASE, HARASSMENT, SHAME AND THE THREAT OF VIOLENCE BECAUSE THEY HAVE NO CHOICE BUT TO RELIEVE THEMSELVES IN THE OPEN

WATER QUALITY
2 MILLION TONNES OF HUMAN WASTE ARE DISPOSED INTO WATER SOURCES EVERY DAY, POLLUTING DRINKING WATER WITH DANGEROUS DISEASE-CAUSING PATHOGENS

http://www.sulabhenvis.nic.in/Database/Infographic_6750.aspx
Section 4: SDG #6 - Clean Water and Sanitation

Sustainable Development Goal 6 - Targets for 2030

- Safe and affordable drinking water for all
- End open defecation and provide access to sanitation and hygiene
- Improve water quality, wastewater treatment and safe reuse
- Increase water-use efficiency and ensure freshwater supplies
- Implement integrated water resources management
- Protect and restore water-related ecosystems
- Expand water and sanitation support to developing countries
- Support local engagement in water and sanitation management

SDG #6: Clean Water & Sanitation
http://worldslargestlesson.globalgoals.org/global-goals/clean-water-sanitation/
This website, the World’s Largest Lesson, provides resources and infographics on all of the Sustainable Development Goals, including number 6 (which is specified in this URL).

Goal 6 - Clean water and Sanitation
The United Nations Development Programme website considering SDG #6, which includes several relevant links and facts and figures on the goal.

Sustainable Development Goal 6: Ensure Access to Water and Sanitation for All
https://sdg-tracker.org/water-and-sanitation
The SDG tracker provides extensive information into the progress towards specific SDGs, in this case number 6. Each target listed above is considered individually, alongside charts and maps of global progress towards clean water and sanitation for all.

Ensuring Access to Water and Sanitation for All: What SDG 6 Wants to Achieve and Why it Matters
A short article considering Sustainable Development Goal 6, its importance to the developing world, and its influence more generally.

SDG 6 On Water and Sanitation is Essential for Sustainable Development
This article considers water and sanitation in a wider context of development factors, and how they are linked.
Section 5: The Future of Sanitation

Reinvent the Toilet
https://www.youtube.com/watch?v=fdwvuTrycYU
Bill & Melinda Gates Foundation video considering how to revolutionize toilet design.

Toilets: We All Need to ‘go’
https://globaldimension.org.uk/toilets-we-all-need-to-go/
A very informative website which considers the history of sanitation, problems arising from a lack of sanitation, and possible solutions to these problems.

Awesome Sanitation Services for the Urban Poor
https://www.youtube.com/watch?v=kZTvbcj5U-4
Gates Foundation YouTube video into one man’s mission to ensure toilets are clean and utilized.

Preventing Sanitation-Related Disease
https://www.who.int/phe/events/wha_66/Sanitation_related_disease_flyer_091213.pdf
Flyer from the World Health Organization considering their role in tackling poor sanitation and the related diseases.

It’s World Toilet Day. Why do so Many People Lack Adequate Sanitation Facilities?
Washington Post article by an academic in the field of sanitation which promotes three suggestions to improve India’s sanitation record.
Comparison of the issues of today’s toilet and the hope for tomorrow’s toilet, as laid out by the Gates Foundation.

Source: https://twistsifter.com/2012/08/bill-gates-reinvent-the-toilet-challenge/
These New Toilets Could Solve a Global Problem
National Geographic article into innovative, waterless toilets which use nano-membranes to break down waste.

More Toilets Used by More People
Unilever Report on sanitation behavior change which focuses on not just increasing the number of toilets but altering the perception of using a toilet. Includes example ideas that, when implemented, would be effective in influencing the target audience to use, maintain, and clean a toilet.

Understanding User Experience of Sanitation for the Urban Poor
Research by the Potty Project (commissioned by the Gates Foundation) which studied 5 cities in India and their populations’ attitudes toward hygiene and sanitation.

When Bad Sanitation Becomes a Distant Memory—from the UK to Madagascar
https://www.wateraid.org/uk/blog/when-bad-sanitation-becomes-a-distant-memory-from-the-uk-to-madagascar
Wateraid article into how recently the UK faced a sanitation crisis, and a consideration of why this should inspire all of us to help improve the global sanitation problem.

Lesson Plan Idea
Have students design a toilet facility for sustainable sanitation using the nano-membrane toilet as an example.

Lesson Plans
As part of this lesson, students are encouraged to design a product which will help to tackle the global water and sanitation crisis by supporting campaigns which seek to improve it.

Lesson focused on raising awareness of biosolids as a source of renewable compost.

http://globaldimension.org.uk/
Clean water and sanitation

**Challenges**

Unsafe water, inadequate sanitation and insufficient hygiene kill 3.5 million people every year.

80% of wastewater is released to the environment untreated. Degradation of the environment and nature destroy nature's ability to provide safe drinking water.

Water scarcity affects more than 40% of the global population.

**Solutions**

Stop dumping chemicals and waste into the environment, invest in sanitation and raise awareness on best hygiene practices.

Protect natural resources and avoid water pollution.

Restore ecosystems to secure access to safe water.
Sanitation Management & Improvement Worldwide
https://www.youtube.com/watch?v=XObSPOrCT7Y
A Bill and Melinda Gates Foundation video into what 21st century sanitation looks like.

The Mad Science Plan to Power The World With Poop
Article considering how fecal matter could be harnessed for energy.

8 Toilet Designs That Could Save Millions of Lives Around the World
A selection of pictures and information about several innovative toilet designs which could potentially help with the ongoing sanitation crisis.

How the Toilet Changed History
https://www.youtube.com/watch?v=GWQG1YZS9I4
Short video into how the toilet has changed history and how history has changed the toilet. Considers the problems that could be solved if toilets were not such a taboo subject.

Nearly 1.4 Billion People Worldwide Lack Access to Toilets. Can Innovation Solve the Problem?
https://scroll.in/article/932269/nearly-1-4-billion-people-worldwide-lack-access-to-toilets-can-innovation-flush-out-the-problem
Article which investigates innovative answers to the sanitation problem, such as a toilet system which requires neither water nor electricity.

10 Things to Know About the Future of Water and Sanitation
10 infographics on the future of water and sanitation alongside SDG #6.
Section 6: Success Stories

World’s Biggest Refugee Settlement Gets Biggest Ever Waste Facility
Summary of a speech by UNHCR spokesperson Andrej Mahecic, within which he discusses a new human waste treatment facility at Cox’s Bazar. Close to a million Rohingya refugees live in a complex of settlements in the Cox’s Bazar area and the building of the plant will significantly reduce the likelihood of the outbreak of disease and health risks for the refugees and host communities.

Ending Open Defecating in Guinea-Bissau: It All Starts Under a Mango Tree
https://www.unicef.org/stories/ending-open-defecation-guinea-bissau
Article which considers the success of the community-led total sanitation approach undertaken in Quinara, the first region of Guinea-Bissau that has been recognized as ‘open defecation free’. Includes bullet points on what change has looked like for the region.

Breaking Taboos to Better Human Rights
https://www.ohchr.org/EN/NewsEvents/Pages/OyungereITsedevdamba.aspx
Article by the Office of the High Commissioner on Human Rights at the UN which discusses the work of one human rights activist hoping to break taboos related to toilets in order to improve sanitation in Mongolia. Accompanied by a short video on how the breaking of the toilet taboo was done.

Facilitating Sanitation Microfinance for Rural Households
CID=WAT_TT_Water_EN_EXT
Short video focused on the success of using microfinance to encourage sanitation investments by rural households and entrepreneurs in Bangladesh.

Half of India Couldn’t Access a Toilet 5 years ago. Modi Built 110M Latrines — But Will People Use Them?
CNN article considering the success and problems associated with the ‘Clean India’ campaign.
Section 7: Get involved

Ten Things You Can Do for UN World Toilet Day
http://worldtoilet.org/ten-things-you-can-do-for-un-world-toilet-day/
A summary of the World Toilet Organization’s suggestions of how to get involved in the Day. Examples of potential activities include doing a ‘Big Squat’ or becoming a toilet advocate. Includes links for more information on each suggestion.

A Global ‘Urgent Run’ To Raise A Stink For Sanitation
http://worldtoilet.org/a-global-urgent-run-to-raise-a-stink-for-sanitation/
Website provides information into what many countries around the world do for World Toilet Day and ideas of how to get involved through holding an ‘Urgent Run’.

World Toilet Day: How to Get Involved
https://ironline.american.edu/world-toilet-day-get-involved/
The International Relations Blog from the School of International Service offers some suggestions on how to get involved with World Toilet Day.

World Toilet Day
https://globaldimension.org.uk/resource/world-toilet-day/
This website provides a number of resources which offer ways to celebrate World Toilet Day with your classroom. These include a quiz and a ‘Toilets in World History’ program.

Water 1st International - Get Involved
https://water1st.org/get-involved/
This Seattle based non-profit seeks to help the sanitation crisis by providing clean water systems and toilets to the world’s poorest people. They host a number of annual events in Seattle to raise money for their work.

Mr. Toilet: The World’s #2 Man
https://mrttoiletfilm.com/
The official website of the Mr. Toilet film, which includes the trailer and a link to learn more about the team that were involved in directing and producing it, including Lily Zepeda.

Lesson Plan
Lesson focusing on the importance of the improvement of water and hygiene. At the end of the lesson, it is suggested that the students become recognized as Safe Water Promoters.

http://worldtoilet.org/the-urgent-run-for-un-world-toilet-day-2014/