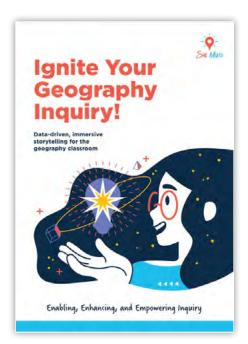
# **SPATIAL TECHNOLOGIES**



# **USING STORYMAPS** TO INVIGORATE THE GEOGRAPHY **CLASSROOM**

## **Katie Vidal, She Maps**

This is a republished She Maps Blog from November 2021 – https://shemaps.com/blog/storymaps-for-the-geography-classroom/

This article enlightens teachers on how to use Esri StoryMaps in the geography classroom. For full access to all Story Maps create a free account

In my previous **blog** I introduced ArcGIS StoryMaps and outlined how they integrate narrative text, interactive maps, and multimedia content, to tell immersive stories about people, places and the environment. There are now more than one million StoryMaps published publicly by a variety of government agencies, NGO's, universities and individuals... but how do you find the best ones to use in your geography classroom?

## Geography Classroom: StoryMaps as a teaching and learning tool

The essence of geography is how humans interact with their environment and **StoryMaps** are a very accessible resource for geography teachers to showcase global issues via digital storytelling to their students.

- Teachers can use StoryMaps for *direct instruction*, to display research, explore case studies, or can serve as an opportunity to promote a cause or inform about an issue.
- StoryMaps can display physical, human and environmental geography in a visually stimulating way to engage your students. They are mostly theme-based about places and people on a range of topics from climate change, sustainability and hazards to migration, development and urbanisation.
- Use them to teach content or to model the variety of design features that StoryMaps can offer before your students start creating their own. No matter what you teach or want to learn, there is likely a StoryMap that you can access. As an educator you can choose how to use StoryMaps, based on time available and the purpose of your classroom lessons.

### Key geographical concepts

StoryMaps can highlight key geographical concepts of place, space, environment, interconnection, sustainability, scale and change and can also help students apply these concepts to a wide range of places and environments at the full range of scales, from local to global, and in a range of locations.

In the classroom, they can help students to apply these geographical concepts, synthesise information from various sources, draw conclusions based on the analysis of data and information, taking into account alternative points of view.

Check out Joseph Kerski's Teaching and Learning with ArcGIS StoryMaps

### Syllabus objectives

Viewing a StoryMap on a chosen global issue can also help students:

- explain geographical processes by describing the features, elements and interactions of processes that shape the identity of places
- comprehend geographic patterns, recognise spatial patterns at global, regional and local scales of study and identify relationships and implications for people and places
- analyse geographical data and information by inferring how patterns, trends and relationships represent geographical data

#### **Geography Classroom**

"Geography is a natural fit with STEM education. Having a geo-literate populace that can generate future solutions is critical to maintaining ecological systems, economic competitiveness, quality of life, and national security in our modern, interconnected world.

National Geographic

# 21st century STEM skills and the inquiry approach

Geography helps develop 21st century skills that students need to prepare them for higher education, work and engagement in a complex and rapidly changing world.

- StoryMaps can promote skills such as critical and creative thinking, ICT skills, social emotional skills and communication.
- StoryMaps that are based on specific case studies can also promote cultural awareness, citizenship and ethical understanding.
- They can promote creative thinking skills by provoking curiosity, creativity and imagination and model ICT skills by showing students how they can be productive users of digital technology.
- They also encourage students to explore reliable sources of information by concluding with in-built citations and references.
- StoryMaps lend themselves to the inquiry approach in geography that describes the 'what' and 'where' of the issues or patterns being studied by displaying both qualitative and quantitative data.

## Maps, satellite imagery and GIS

The Australian Curriculum mandates that in Year 7 to 10 Geography, spatial technology use is explicitly specified in the Geographical Inquiry and Skills strand.

StoryMaps are a perfect way to introduce your students to Geographic Information Systems (GIS) as they show different layers of information in an interactive map that is easy to explore and engage with. Exposing junior geographers to spatial technology via StoryMaps can show the array of data available in ArcGIS Online and ESRI's Living Atlas. This prepares junior geographers for Senior Geography where students need to demonstrate the use of spatial technologies to produce their own maps for assessment.

La Palma eruption teaching resources created by Jason Sawle at Esri UK, is a collection of classroom ready GIS based applications for teaching about the La Palma eruption.

To further explore the options of using GIS in your classroom have a look at Esri Australia's StoryMap on Implementing GIS into your school's curriculum and Brett Dascombe's StoryMap EduDrone – Spatial Technology toolbag for teachers.

#### Sustainable Development Goals

**Sustainability** is a key geographical concept and a cross curriculum priority for the Australian curriculum, and you will find a plethora of relevant StoryMaps about the SDGs.

**SDGs Today** is an excellent website that provides many collections of Story Maps about each of the 17 Sustainable Development Goals for 2030. This platform integrates a variety of tools and resources that give access to timely, geospatial data about the SDGs.

Go to The Sustainable Development Solutions Network Collection and start with the first Story Map called SDGs Today which introduces the purpose of the website and how you can access the Data Hub, Storytelling and Education pages.

# JUNIOR GEOGRAPHY: THE BEST STORYMAPS

Finding the best StoryMaps that match to the geography content being taught in our secondary schools can be time consuming...so how do you find the best ones to use in your geography classroom? A good place to start is on the esri website **Explore Stories** but if you haven't got the time, we've done it for you! We matched each of the ACARA geography units below to some of the best StoryMaps examples that are publicly available at the moment.

#### Water in the World

This StoryMap will engage students with the perspectives of Aboriginal Peoples and Torres Strait Islander peoples to investigate Indigenous knowledge and water issues at Uluru (Ayers Rock) in the Northern Territory.



Other notable Story Maps for this topic::

Earth's Biggest Storms: Tropical Cyclones, The Tidal Thames and Drones, GIS and the Townsville floods, Climate: Murray-Darling Basin

#### Place and Liveability

This StoryMap follows a Volcano Expedition Team that travelled to Guatemala on a National Geographicfunded expedition to better forecast when eruptions will occur and support communities that live with this risk. On An Island is a collection of StoryMap lessons designed to encourage geo-literacy skill development in early ArcGIS users by exploring Caribbean landscapes and people

Other notable StoryMaps for this topic: The Voices of Grand Canyon, Living in the heart of winter, A Story About Great Countries

### Landforms and Landscapes

This StoryMap is a visually stimulating look at the research being conducted at Mt Everest in the Himalayas.



Other notable StoryMaps for this topic: Peaks and Valleys, Australia's Black Summer, Dealing with Disasters, Seven Wonders: Natural World, Drones, GIS and bushfire recovery, Landform Regions of Australia, How Deep is Challenger Deep?, Iceland, Great Barrier Reef Hope Spot

#### Geographies of interconnections

This StoryMap investigates how the Global Shipping Industry should be held accountable for the extensive damage caused to vulnerable habitats and their communities.

Other notable StoryMaps for this topic: The Human Reach, The secret life of bridges, Make Way for Whales, Seven Wonders: Engineering Feats, Spatial Change in Nike Sneakers,

#### **Changing Places**

This StoryMap explores human population density, urbanisation, transport and communication networks via globe animations, and the extent of the human footprint.

Other notable StoryMaps for this topic:

Grace and Delight, COVID-19 and refugees, The challenges facing Jakarta's future, The Changing Demographics of Australia (student report), Migration and Public Transport (student report), Urban Africa

### Sustainable Biomes (including food security)

This StoryMap is a visually stunning look at the world's biomes and their distribution, importance and threats and how terrestrial and marine protected areas can save biodiversity.

Other notable StoryMaps for this topic: Climate & Ugandan Coffee, The Cost of Beef, The Living Land, From Farm to Mess Hall, The Global lives of Indian Cotton, SEEDS for Recovery, The Diversity of Life: Atlas, (Farm) Animal Planet, The Half-Earth Project, 30X30: A movement to protect a third of our planet's surface

### Environmental change and management

This StoryMap looks at how Phillip Island's iconic wildlife is being impacted by climate change.

Other notable StoryMaps for this topic: Climate Migrants, Living in the Age of Humans, Looking below the surface, Great Barrier Reef, Hot Numbers, Plastic Pollution, Ivory Trafficking, On the brink, Improving Our Coastal Ocean

## Geographies of wellbeing

This StoryMap demonstrates how CARE and their partners in 81 countries have contributed to significant change in 11 of the 17 Sustainable Development Goals

Other notable StoryMaps for this topic: Measuring Success, Livelihoods, food and futures: COVID-19 and the displaced, An Analysis of the Global HDI Score Methodology, A New Wave of Water Champions

#### STORYMAPS FOR SENIOR GEOGRAPHY

Senior Geography teacher Brett Dascombe from Wavell State High School in Brisbane has just received a Teacher in Excellence Award for his use of spatial technologies in the classroom. His students are producing StoryMaps from Years 7–10 and for Internal Assessment in Senior Geography. He has recently shared this StoryMap to help his students describe, analyse and explain maps and graphs in Senior Geography – IPQE Writing for Senior Geography & the External Assessment

**EDITOR'S NOTE**: Katie's original blog includes StoryMaps linked to Australian Curriculum Senior Geography topics.

#### **COLLECTIONS**

And if the Esri StoryMaps team had not already made StoryMaps easier to view and build, they created **collections** giving authors the ability to publish a group of stories of the same theme in the one StoryMap. Here are some notable collections:

A collection of 30 StoryMaps by Mission Blue, a global coalition to inspire public awareness of a worldwide network of marine protected areas in **Hope Spot StoryMaps** 

A collection of over 50 StoryMaps by scientists, conservationists, storytellers, and educators around the world in **National Geographic Explorer Stories** 

A collection of 30 wildfire StoryMaps from the USA in **Wildfire Maps** 

A collection of 21 StoryMaps about New York's remarkable water system that pipes millions of gallons of fresh water into the city every day and distributes it across its five boroughs in NYC H20 Maps

#### 2021 ESRI StoryMaps Weekly Waypoint

Additionally, the number of items that it's possible to place in a collection has doubled from 30 to 60. This makes collections a great way to house content from your organisation and update it whenever you want, like a newsletter or a recurring status update. It's a great way to collate a series of your favourite StoryMaps with the same theme or collate StoryMaps like chapters of a book or a series of lessons for a unit of work.

So, if you like some of the StoryMaps shown in this blog you can copy their URL addresses and embed the links into your own collection on a specific theme that your students can easily access with the link. And when you come across a new StoryMap on the same theme, you can easily edit and add it to your collection.

As an example, the Esri StoryMaps team uses a collection to update enhancements, resources, and featured stories in 2021 StoryMaps Weekly Waypoint

# Geography curriculum mapped to amazing StoryMaps – Teacher Resource

At its most basic, ArcGIS StoryMaps are a collection of interesting maps and stories that support various topics and themes found in the Australian curriculum. They are an interactive, engaging way to explore the world and practice geospatial skills.

StoryMaps allows students with varying levels of GIS and mapping experience (from none to substantial) to clearly express the spatial story attached to their projects or topic of study. They help foster GIS technical skills, information acquisition and data analysis, which is then used to create highly engaging stories.

ArcGIS StoryMaps can be used as a teaching tool, for student inquiry, research and is a great alternative to conventional research papers or PowerPoint presentations.

StoryMaps are easily available online, there is no need to log in or create code, and they can be accessed on any device. However, you will need an ArcGIS StoryMaps account to create your own StoryMaps. **Click here** to learn more.

To get started with StoryMaps is super easy.

We've saved you hours of time by choosing some of the best StoryMaps to showcase in your classrooms before your students start creating their own. We have chosen the best StoryMap links under each of the Year 7–10 Australian Curriculum sub-strands for geography and have popped in some other cool StoryMaps on other STEM-based topics. Keep scrolling down to find your chosen topic.

If you are interested in using more of this information and technology in your lessons, take a look at Ignite Your Geography Inquiry!

SheMaps have collated some of the best **StoryMaps** to help guide your students through their geography inquiry journey. We have done all the hard work to find resources that connect with the units of work specifically identified in the Australian Curriculum. Here are the topics we cover:



Click HERE to DOWNLOAD THIS RESOURCE. - https:// d1aettbyeyfilo.cloudfront.net/myacademy/26928270\_1 647923950323StoryMap\_resource\_list\_for\_GeoSTEM\_ March\_2022.pdf





#### Earth's Biggest Storms: **Tropical Cyclones**

Called hurricanes by some, these spinning megastorms have catastrophic impacts across the alobe



#### Volcano Perspectives

Around the world, volcanoes threaten nearly half a billion people. Scientists are working to better forecast when eruptions will occur and support communities that live with this risk.



#### The Voices of Grand Canyon

Read, listen, watch, and learn.



#### Addressing the Climate Crisis

Why geospatial solutions are key to understanding and responding to climate change

Examples of StoryMaps