



# Real-World Action Project

Select an inquiry project to suit you. You may choose to use 'Information Fluency' for knowledge construction or 'Solution Fluency', a renowned design thinking process facilitating high quality inquiry thinking for real-world problem solving.

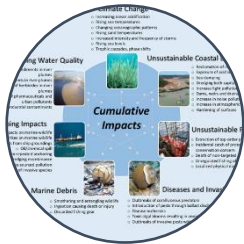


# Coastal Conservation Real-World Action Project

## Your challenge, should you choose to accept...

This project challenges you to take real-world action! Are there issues affecting coastal conservation that you feel strongly about? Would you like to make a positive difference? Would you prefer to be part of the problem or part of the solution? Would you like to solve problems that matter to you?

Having freedom to choose a topic that captures your heart can dramatically enrich learning. This project is designed to allow you to select a topic and work towards creating real-world action to make a difference. Just make sure you work closely with your teacher/parents to ensure your actions are safe, appropriate and have maximum impact. Most importantly, make time at the end to share and celebrate your action with others, no matter how big or small the impact may be.



### Step 1

What does coastal conservation mean to you? What are you most concerned about?



### Step 2

Use Solution Fluency to lead you to create real-world action



### Step 3

Share and celebrate



# Coastal Conservation Real-World Action Project

## Discuss

What does coastal conservation mean to you? What are you most concerned about? Use this page to highlight and discuss issues affecting your region. What makes you curious? What are you concerned about? What would you like to create?



### Climate Change

- Increasing ocean acidification
- Rising sea temperatures
- Changing oceanographic patterns
- Rising sand temperatures
- Increasing intensity and frequency of storms
- Rising sea levels
- Trophic cascades, phase shifts



### Unsustainable Coastal Development

- Reclamation of marine habitat
- Exposure of acid sulphate soils
- Sea dumping
- Dredging both capital and maintenance
- Increase light pollution and visual disturbance
- Dams, weirs and drainage altering freshwater flows
- Increase in noise pollution
- Increase in atmospheric pollution
- Hardening of surfaces



### Unsustainable Fishing Impacts

- Extraction of top-order predators with flow on effects
- Incidental catch of protected species and species of conservation concern
- Death of non-targeted by catch species
- Unregulated fishing of spawning aggregations
- Localised physical damage



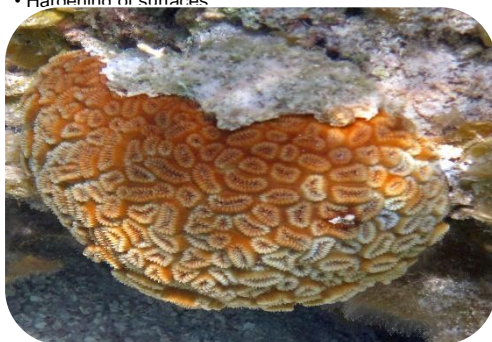
### Shipping Impact

- Noise impacts on marine wildlife
- Vessel strikes on marine wildlife
- Damage to habitats from ship groundings
- Oil/chemical spill
- Damage from repeated anchoring
- Increased turbidity from dredging maintenance
- Ship-sourced pollution
- Introduction of invasive species



### Declining Water Quality

- Increased levels of sediments in river plumes
- Increased levels of nutrients in river plumes
- Increased levels of herbicides in river plumes
- Increased levels of pharmaceuticals and urban pollutants
- Increased levels of industrial contaminants



### Diseases and Invasive Species

- Outbreaks of corallivorous predators
- Introduction of pests through ballast discharge
- Disease outbreaks
- Toxic algal blooms resulting in anoxia
- Outbreaks of invasive pests with cascading effects



### Marine Debris

- Smothering and entangling wildlife
- Ingestion causing death or injury
- Discarded fishing gear



### Dune Biodiversity Loss

- Anthropogenic impacts such as walking, vehicles
- Impact of introduced species
- Spreading of disease from vehicles

When you are ready, use Solution Fluency to guide you to develop a real-world solution.

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## Use Solution Fluency to lead the way...

Solution Fluency is a 'design thinking' model developed to help you create solutions to problems that matter to you. Use the following pages to capture your learning. Work as a class, small group, individually and/or remotely and complete one or more projects as time permits on your chosen topic.

### solution fluency

Solution Fluency is the ability to think creatively to solve problems in real time by clearly defining the problem, designing an appropriate solution, delivering the solution and then evaluating the process and the outcome. Solution Fluency is defined by the 6Ds process.



#### Define

In order to solve a problem, we have to clearly define what the problem is first. We must decide exactly what needs to be solved, and give proper context to the problem.



#### Discover

This is the stage of researching and gathering, and analyzing clear knowledge about the problem. This helps us to give the problem context so that we can identify with it easier.



#### Dream

Here, we open up the heart and mind to the possibilities and visions of a solution the way we wish to see it. This phase is all about imagination, extrapolation, and visualization.



#### Design

This is basically the workshopping phase. Here the actual mechanics of your solution begin to take shape. It involves techniques that allow us to get the solution "on paper."



#### Deliver

In this phase, there are two separate stages—Produce and Publish. This involves the action for completing the product (Produce), and presenting the proposed solution (Publish).



#### Debrief

The reflection stage where students get to own their learning. They look at the ways they succeeded, and ways they could improve their approach in similar future situations.

# Real-World Action Project



## Define

In order to solve a problem, we have to clearly define what the problem is first. We must decide exactly what needs to be solved, and give proper context to the problem.

**What is the problem and what needs to be solved? Try to articulate the exact issue.**

Coastal Conservation

# Real-World Action Project



Discover

This is the stage of researching and gathering, and analyzing clear knowledge about the problem. This gives the problem context so you can identify with it more easily.

**What do you know and need to know about the problem? Use this page to gather your research.**

# Real-World Action Project



## Dream

Here, we open up the heart and mind to the possibilities and visions of a solution the way we wish to see it. This phase is all about imagination, extrapolation, and visualization.

**What amazing and wild ideas can you think of to solve this problem? How could we implement real-world action in a positive way?**

Construct a...

Write to...

Invent a...

Create a...

Organise to...

# Real-World Action Project



## Design

This is basically the workshopping phase. Here the mechanics of your solution begin to take shape. It involves techniques that allow us to get the solution “on paper.”

**What’s the plan? Use this space to share the main steps you will take to achieve positive real-world action.**

<p><b>Step 1</b> Write here</p>	<p><b>Step 2</b> Write here</p>	<p><b>Step 3</b> Write here</p>	<p><b>Step 4</b> Write here</p>
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# Real-World Action Project



Deliver

In this phase, there are two separate stages – Produce and Publish. This involves the action for completing the product (Produce), and presenting the proposed solution (Publish).

**Showcase your solution here! Use a suitable format (poster, brochure, slide, website, video, podcast) to present your solution for positive real-world action.**

# Real-World Action Project



## Debrief

The reflection stage is where you get to own your learning. You look at the ways you succeeded, and ways you could improve your approach in similar future situations.

**Use this space to reflect on your learning.**

**What was great?**

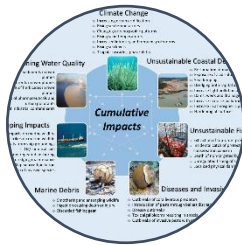
**Even better if?**

# Coastal Conservation Real-World Action Project

## Congratulations!

If you are reading this page, it is likely you have completed a project that challenged you to take real-world action! We know there are issues affecting coastal regions near you that you may feel strongly about.

Having freedom to choose a topic that captures your heart can dramatically enrich learning. This project was designed to allow you to select a topic and work towards creating real-world action to make a difference. Most importantly, now is the time to celebrate your action with others, no matter how big or small the impact may be.



### Step 1

Consider coastal conservation in your region. What are you most concerned about?



### Step 2

Use Solution Fluency to lead you to create real-world action



### Step 3

Share, celebrate and reflect on your achievement

*We hope you enjoyed being part of the solution and implementing positive real-world action!*