

Geography / Modern Studies
Earthquake and Tsunami in the Indian Ocean
Teacher's Notes
(Standard Grade; Intermediate 1 and 2)



Acknowledgements

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Sri Lanka – receding waters from the tsunami
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The impact of the recent Asian tsunami catastrophe clearly demonstrates the ways in which the lives of people throughout the world are linked. While the disaster affirms difference and diversity it also shows a remarkable generosity of spirit and resource from a great range of nationalities and agencies. Additionally, while the importance of emergency disaster relief is evident, there is also a more fundamental realisation of the need to work towards a more just and sustainable world and to address the underlying causes of poverty and injustice.

In curricular terms, and depending on the context, some pupils will learn about tsunamis and their effects through ICT or subjects such as Geography (People and Place), Modern Studies (People in Society) or Religious and Moral Education; others will learn through a more integrated, cross-curricular and flexible approach where tidal waves and other natural disasters are studied from a range of perspectives – moral, social, economic, cultural, political, environmental, scientific and technological.

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Introduction

The magnitude of the Indian Ocean tsunami, the horror of its aftermath and the unprecedented response from the global community will be the focus of the world's attention for some months to come. The challenge for teachers is to respond in a way that is sympathetic and informed and aids an understanding of the human and environmental impacts as well as the actual physical causes of this natural disaster. For this purpose LT Scotland has developed this flexible interactive teaching and learning resource.

Aims

This resource aims to support learning about the Indian Ocean tsunami disaster and the development of:

- knowledge and understanding of natural disasters, their physical causes, their human, socio-economic and environmental impact, and the role and responsibility of society in responding to and meeting the needs of countries and people affected by natural disasters
- informed attitudes, values and dispositions
- enquiry skills.

The materials are designed and structured with the aim of providing a sustainable teaching and learning resource which can be used in future within other contexts to support the development of informed attitudes, values and dispositions and transferable skills.

Relevance to the curriculum

The tsunami disaster has relevance across the curriculum and to the global dimension in the curriculum. The resource will support teaching and learning in various subject areas, for example it may be useful in the delivery of:

- education for citizenship
- 5–14 environmental studies
- modern studies
- geography.

Resources

These resource materials are designed to allow teacher flexibility and choice in delivery and approach and to be adaptable to enable use within different contexts. The resource materials are designed to be accessible across a range of curricular areas and levels by allowing teachers to adapt and update the resources to fit their particular local needs. They are also designed to facilitate directed and self-directed study. They can be used as a complete package or on a selective basis as appropriate to local needs and contexts.

The resources are categorised by four main themes:

- Natural Disasters
- Earthquake and Tsunami in the Indian Ocean – Impact
- Aid – Emergency Response and Relief Effort
- Long-term Sustainable Recovery.

Information source materials

The source materials provided include:

- Background information on the Indian Ocean disaster
- Case studies, with a focus on the Indian Ocean earthquake and resulting tsunami, impact on the human and physical environment, the immediate aftermath and international response/relief aid effort, long-term sustainable recovery and issues surrounding this.
- Web resource links to additional resources on other appropriate websites.

The materials incorporate web links which can be found on LT Scotland's 5–14 and Education for Citizenship websites and many more additional links to relevant and appropriate web resources on other external websites.*

These links should allow access to more detailed information to build on that provided in the background and case study source materials and which can be used for the online investigation activity or other appropriate activities.

Additional resources found on appropriate websites, such as those from non-governmental organisations (NGOs) (e.g. charities such as Oxfam, SCIAF), government agencies/organisations (e.g. DFID, United Nations), the media (e.g. BBC), and other relevant organisations, will include:

- statistics
- maps, satellite images
- photographic and AV images and sound
- eyewitness accounts
- media reports
- expert commentary.

*Please note that Learning and Teaching Scotland is not responsible for the content of web pages on other websites. Some of the web pages might be removed or archived from the original website after a period of time has elapsed.

Learner Activities

The learner activities that accompany the resource aim to support development of knowledge and understanding, enquiry skills, informed attitudes, values and dispositions set within contexts categorised under four main themes:

- **Natural Disasters**

Natural disasters and their physical causes with a special focus on the natural events that brought about the Indian Ocean disaster.

- **Earthquake and Tsunami in the Indian Ocean – Impact**

The extent and nature of the human, physical and environmental impact of the Indian Ocean earthquake and tsunami, in the areas directly hit and on a global scale.

- **Emergency Response**

The immediate needs arising from the devastating impact of the Indian Ocean tsunami, the response of national governments and the international community and their role and responsibilities in meeting these needs through provision of emergency relief aid.

- **Long-term Sustainable Recovery**

The long-term needs arising from the impact of the Indian Ocean disaster, how these needs can be met in the long term through sustainable recovery and reconstruction efforts of national governments/authorities and the international community, and the relationship between disaster reduction, sustainable development and poverty reduction.

The activities are by way of suggestion only and are designed to allow flexibility and choice in delivery and approach and to be adaptable to enable use in different contexts. The activities can be used as a complete package or on a selective basis as appropriate to local needs and contexts.

Alternatively teachers might want to design their own activities using the range of resources provided.

Questions

The questions are source-based but it is recommended that use is made of the web resource links to allow access to web-based resources to build on information provided in the source materials. These activities can be completed individually, in pairs or in groups, primarily depending on the local context.

WebQuests

WebQuests are enquiry-oriented activities where most or all of the information used by learners is gleaned from the internet. The focus is on using information rather than looking for it, and to support learners' thinking at the levels of analysis, synthesis and evaluation.

WebQuests included in this resource aim to support the development of enquiry skills by facilitating investigative online enquiry into the disaster.

In general the WebQuest model has standard elements:

- **Introduction** – introduces the activity to the learner; scene setting
- **Task** – information on the specific task to be carried out
- **Process** – guidance on the steps required to accomplish the task
- **Resources** – web-based information and internet links
- **Evaluation** – describes how performance will be evaluated/evaluation criteria*
- **Conclusion** – summary of what has been achieved through taking part
- **Teacher's notes** – brief notes on approach/methodology.*

In addition to the standard elements noted above, the model used in this resource includes *Reflection*. It is considered that the process of reflection is a key requirement of learning and development. A suggested template is provided for learners to complete. It includes a section for peer review which can be used flexibly.

Evaluating WebQuests

A suggested evaluation template is provided for teachers to complete with their own rubric. Examples of other templates may be found at the San Diego State University WebQuest site:

<http://WebQuest.sdsu.edu/WebQuestrubric.html>

The WebQuests aim to support development of knowledge and understanding, enquiry skills, informed attitudes, values and dispositions set within contexts categorised under four main themes. Each WebQuest is designed to allow flexibility and choice in delivery and approach and to be adaptable to enable use within different contexts.

Use of other available resources

- **Background notes and case studies**
The background notes and case studies available in the resources pack will be useful for background preparation purposes. It is suggested that the learner conducts background preparation on an individual basis. An optional activity for the learner as part of the preparation process is to complete the activity questions.
- **Web resources**
A wide range of web resource links is provided, arranged under each research area heading (please note that some links will cover more than one research area). These are suggested links and not a definitive list. Teachers might wish to add their own links. Alternatively, teachers might wish to include as part of the research process a task for learners to search for other relevant web resources.

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WebQuest: natural disasters

Through role play learners are given the task of investigating the hypothesis that we can stop natural disasters from happening.

The learner is given a character role in which to complete the given tasks.

It is suggested that learners carry out this activity either individually or working in partnership with others.

WebQuest: earthquake and tsunami in the Indian Ocean – impact

Through role play learners are given the task of investigating the hypothesis that although people and the socio-economic infrastructure have been devastated by the Indian Ocean tsunami, there has been little impact on the natural environment.

The learner is given a character role in which to complete the given tasks.

Learners might carry out this activity either individually or working in partnership with others. It is suggested that learners working individually select a small number of affected countries to research.

To add value to the activity the teacher may wish to include the task of drawing comparisons about the extent and nature of the impact on the environment in the areas affected, for example impact where coral reefs/mangrove forests were intact compared to impact where they were not.

WebQuest: aid – emergency response and relief effort

Through role play learners are given the task of investigating the full extent and nature of the impact of the Indian Ocean tsunami on selected countries and establishing immediate needs, appropriate aid requirements and the roles and responsibilities of the individuals and organisations of the international community in providing aid to meet the immediate needs.

The learner is given a character role in which to complete the given tasks.

Learners might carry out this activity either individually or working in partnership with others. If working individually it is suggested that the learner selects a small number of countries affected to research.

WebQuests – long-term sustainable recovery

Disaster reduction

Through role play learners are given the task of investigating and assessing the suitability of a variety of disaster reduction systems, and based on conclusions drawn, making a recommendation for the implementation of one of the systems investigated.

The learner is given a character role in which to complete the given tasks. Learners may carry out this activity either individually or working in partnership with others.

Turning point

Through role play learners are given the task of considering the case for and against the view that the Indian Ocean tsunami disaster has been a turning point for the world.

A suggested list of character roles is provided (politicians, NGOs, UN, business people, special envoys, political activists, people affected by the disasters. etc.), but the option is open for teachers to introduce other characters/roles. Alternatively, teachers could encourage learners to introduce their own characters.

The learners in their chosen character role will complete the given tasks.

It is suggested that learners carry out this activity working in partnership with others.

Resources summary

Natural Disaster

- Background
- Case studies
 - Natural disasters
 - Focus on earthquakes and tsunamis
- Web resource links
- Activities

Earthquake and Tsunami in the Indian Ocean – impact

- Background
- Case studies
 - Human socio-economic impact
 - Differences in impact
 - Impact on the environment
- Web resource links
- Activities

Aid – Emergency response and relief effort

- Background
- Case studies
 - What is Aid?
 - Public response
 - Non-governmental organisations
 - United Nations
 - UN specialised agencies
 - Individual governments
 - Barriers to Aid
- Web resource links
- Activities

Long-term Sustainable Recovery

- Background
- Case studies
 - Socio-economic infrastructure
 - Disaster reduction system
 - Turning point – improving global aid
- Web resource links
- Activities