Flooding

Introduction

This learning journey is designed to assist in the teaching of resilience education. It focuses on flooding in Bangladesh, looking at the causes, effects and potential solutions or responses to this environmental issue, contrasting these within a local and national context. Learners are encouraged to explore the influences of the physical environment, human activities and the economy on the level of response and to present their findings in a logical, organised and engaging way to other learners.

The learning journey, aimed at third and fourth level, begins by engaging learners with the issues of flooding in an Economically Less Developed Country (ELDC). They should be encouraged to think about the causes, both local and international and the consequences for those affected by these conditions. Learners are given the opportunities to research existing options for preparation, to analyse case studies and propose their own response measures.

This learning journey covers the following learning experiences:

- Understanding the causes of flooding in ELDCs
- The causes of flooding: comparing Bangladesh and the UK
- Flooding: Reducing the risk

Experiences and outcomes

**HWB**
- I know and can demonstrate how to keep myself and others safe and how to respond in a range of emergency situations. HWB 0-17a - HWB 4-17a

**Literacy**
- I can independently select ideas and relevant information for different purposes, organise essential information or ideas and any supporting detail in a logical order, and use suitable vocabulary to communicate effectively with my audience. LIT 3-06a

**Social Subjects**
- I can identify the possible consequences of an environmental issue and make informed suggestions about ways to manage the impact. SOC 3-08a
- I can develop my understanding of the interaction between humans and the environment by describing and assessing the impact of human activity on an area. SOC 4-10a
- I can carry out a geographical enquiry to assess the impact and possible outcomes of climate change on a selected region and can propose strategies to slow or reverse the impact. SOC 4-12b

Approaches to learning

- Co-operative and collaborative learning
- ICT in Education Scotland
- Creativity
- Active learning

Prior knowledge

Learners should have a prior knowledge of the terms ‘Economically More Developed’ and ‘Economically Less Developed’. They should have explored issues of international development prior to undertaking this task. Learners would benefit from having studied UK flooding to have an appreciation of its causes, effects and responses.

http://www.educationscotland.gov.uk/readyforemergencies
Flooding in ELDCs – Learning Journey

Learning experience:
Understanding the causes of flooding in ELDCs

Introduction
This activity introduces learners to the issues surrounding flooding in an ELDC (Economically Less Developed Country). It is designed to develop an understanding of causes and the effects of flooding in Bangladesh.

Stimulus
Learners should be encouraged to use prior knowledge to stimulate discussion.

News clips from the BBC website provide an insight into the impact of flooding in Bangladesh. Google Earth or atlases can be used to identify geographical features of the country, whilst the UN Data website can provide information on economic and social indicators. (See ‘Useful resources’).

Learning intention
- To establish how the physical environment and human activity cause or intensify flooding in Bangladesh.

Possible tasks
- Learners use the video clips of news reports on flooding in Bangladesh (see ‘Useful resources’) as the basis for a discussion on the potential effects of flooding in ELDCs.
- Learners research the physical and human causes of the floods in and create a newspaper article, web page, comic strip, short film, podcast or animation explaining why Bangladesh is so badly affected by flooding.
- Learners consider the causes of flooding and the economic and social development indicators for Bangladesh, assessing possible links and presenting their findings in a chosen format. This can be carried out on an individual basis or as part of a group.

Success criteria
Learners can:
- describe how the physical environment and human activities can influence flooding
- explain how levels of development within a country can influence their preparation and response to flooding
- describe and assess the prevention strategies in operation in Bangladesh.

Possible evidence
Learners can:
- use a map to identify physical features which affect flooding patterns
- review a list of indicators of development, identify which might affect the ability to respond to flooding and discuss how these affect flood management.

Reflecting on learning
- How can the physical environment of a country increase the likelihood of flooding?
- How might the differences in economic and social development affect flood preparation and response?

Taking it further
Learners carry out the suggested tasks using Scotland as a focus instead of Bangladesh and use this to consider the differences between the two countries.

Useful resources
BBC Class Clips: Living with extreme floods in Bangladesh

UN Data: Bangladesh

GeoBytesGCSE: The 1998 Floods in Bangladesh

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Introduction

This activity allows learners to develop their knowledge and understanding of the causes and effects of flooding in Bangladesh, giving them the opportunity to explore why the effects are so severe compared to flooding in the UK.

Stimulus

Activities developed specifically to support this learning experience are available on the Ready for Emergencies section of the Education Scotland website (see ‘Useful resources’).

In addition Google Earth or atlases can be used to identify geographical features of the countries studied.

Learning intention

- To understand why the effects of flooding vary by country and how levels of development can affect the ability to respond effectively.

Possible tasks

- Learners create their own maps identifying the geographical features which contribute towards the effects of flooding in Bangladesh and the UK and compare the two.
- Learners complete the ‘Flooding in Bangladesh: Dominoes activity’ (see ‘Useful resources’) to encourage them to consider the causes and effects of flooding.
- Learners complete the ‘Why was the post office protected from flooding?’ and ‘Why is Vivek worried his home will flood?’ activities (see ‘Useful resources’) and use their findings to consider why the effects of flooding vary depending on the country.
- Learners use the ‘Concept Map: Flooding in Bangladesh’ exercise (see ‘Useful resources’) to understand how various factors affect flood management, using their findings to compare how different countries respond to flooding and why.

Success criteria

Learners can:

- identify the differences between the impact of flooding in Bangladesh and the UK
- discuss the difference in the ability to respond to flooding in each country, and identify possible reasons for this.

Possible evidence

Learners can:

- accurately complete some or all of the activities suggested under ‘Possible tasks’
- engage in a discussion with peers on the impact of flooding in the two countries.

Reflecting on learning

- Which factors are most common in the causes of flooding in Bangladesh, human or physical factors?
- How can the level of development within a country affect the response to a flooding event?

Taking it further

Learners could consider how the response to other emergency situations might differ between countries.

Useful resources

Download the following resources from the Ready for Emergencies website:

- Flooding in Bangladesh: Dominoes activity
- Why was the post office protected from flooding?
- Why is Vivek worried his home will flood?
- Concept map: Flooding in Bangladesh

http://www.educationscotland.gov.uk/readyforemergencies
Flooding

Flooding in ELDCs – Learning Journey

Introduction
This activity allows learners to investigate the preparation and response strategies for flooding in Bangladesh, including how the individuals and the international community as a whole can contribute to reducing the risk of flooding in Economically Less Developed Countries (ELDC).

Stimulus
Activities developed specifically to support this learning experience are available on the Ready for Emergencies section of the Education Scotland website (see ‘Useful resources’).

Learning intention
- To understand what measures can be taken to reduce or prevent flooding in Bangladesh, including local, national and international strategies.

Possible tasks
- Learners use the ‘Choosing a flood prevention strategy’ group activity (see ‘Useful resources’) to research and report on potential flood prevention strategies. Their findings can then be used to discuss which solutions would be most appropriate in Bangladesh.
- Learners work with a partner school or organisation in and ELDC at high risk of flooding to learn more about the specific risks and preparation / prevention strategies in place.
- Learners research local, national and international strategies for responding to floods in ELDCs and create a mind map detailing the links between the different areas.
- Learners work in groups to research flood prevention and response strategies of specific international charitable organisations and non-governmental organisations. They then compare their findings in the wider group, discussing the effectiveness of each and areas where they might work together.

Success criteria
Learners can:
- describe a range of flood prevention strategies and identify the most appropriate solutions for a given area
- describe the role played by individuals, local communities and the international community in flood prevention.

Possible evidence
Learners can:
- accurately complete the ‘Choosing a flood prevention strategy’ activity
- create a flood prevention and response plan for a specific community / organisation.

Reflecting on learning
- At which scale, local, national or international is response most effective?
- Which constraints, if any, might delay or prevent an effective response to flooding?
- How could you involve or encourage others to respond positively in order to reduce the impact?

Taking it further
Learners could continue to develop links with schools or organisations in ELDCs to further their understanding of the issues surrounding flooding, or to work on a wider range of projects.

Useful resources
Download the ‘Choosing a flood prevention strategy’ activity from the Ready for Emergencies website.
Red Cross: Preparing for disasters http://www.redcross.org.uk/What-we-do/Preparing-for-disasters

http://www.educationscotland.gov.uk/readyforemergencies