So, what's the good news?
Well, that depends on your point of view. Given that our fossil fuels are running out, the Arctic provides huge potential for accessing new sources of oil, gas and mineral reserves, previously hidden under the ice sheets. The melting ice has also opened up new shipping routes, shortening journey times and making transportation more efficient.

In future, geo-engineering solutions which aim to reduce the amount of sunlight reaching the earth may help to slow the rate of global warming so the problems may not be as bad as many predict.

Does it matter to me?
As the Arctic is unlikely to be the next holiday destination for many of us, is the melting sea ice something we should be concerned about? Scientists are still debating the issues, but the causes and consequences of the Arctic’s record ice melt may lie closer to home than we realise.

• With less ice to reflect the sun's rays, rising land and sea temperatures have resulted in changing weather patterns, causing our summers to become wetter and our winters drier.

• Global warming is not just a cause, but also a consequence, of the melting sea ice. Melting of the permafrost in the Arctic region releases large amounts of methane (a more powerful greenhouse gas than carbon dioxide), thus further accelerating global warming.

All change in the Arctic
This summer, the Arctic witnessed the lowest ever recorded levels of sea ice. As global temperatures have been increasing, the Arctic's sea ice has been melting at an alarming rate, sometimes by as much as 100,000 km² a day (that's twice the area of England). Scientists are warning that by 2050 the Arctic will be completely ice free in summer.

Did you know?
- There is enough water locked up in the Greenland ice sheet to raise global sea levels by 7m
- The Arctic Ocean is the world’s smallest, about 10 times smaller than the Pacific
- 4 million people live in the Arctic

New to the geog. family
The geog.atlas is perfect for teaching and learning about the world, and will be out next spring. To find out more or to reserve your inspection copy, please email fiona.mccollum@oup.com.

Find us on Twitter we’re @OxfordEdGeog.

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Welcome to this term’s geog newsletter. During an eventful summer, two quite different stories really caught our eye. The first was Arctic sea ice levels reaching a record low. We’ve looked at what that means on this page, and put together a photocopiable worksheet for you to use in class on page 3. The second was the re-accreditation of GCSEs, and in particular the significant changes to some, such as Edexcel B. Turn to page 2 to find out how they could affect you, and how we can help.

On a lighter note, we’re also running a caption competition to win an e-atlas for your classroom. I’m looking forward to reading your efforts! And if you have any queries or suggestions, please don’t hesitate to email me at fiona.mccollum@oup.com.

Enjoy the rest of the term,
Fiona Geography team

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geog.2 includes materials to support students’ understanding of this issue. Chapter 4 explores the Arctic tundra, Chapter 5 examines the causes and consequences of global warming and Chapter 6 encourages debate on the future of fossil fuels.

Why not use the activity cards on page 3 to stimulate class discussion on the unprecedented decline in Arctic sea ice witnessed in 2012?
The revised GCSEs and our books

We thought we’d take this opportunity to let you know how our books meet the requirements of the new GCSE specs.

As you probably know …

In January 2012, Ofqual initiated a full review of all GCSE Geography specifications, with teaching of the new specs to start September 2012. The process was completed in August.

The changes …

There are four changes that affect all specs:

• Two-year courses that started September 2012 are linear.
• Exams will be taken at the end of the two years.
• Controlled assessment will be submitted for moderation at the end of the course, but can be undertaken at any time.
• SPaG will be assessed in all exams from 2013.

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Beyond these generic changes, certain specifications also have particular changes.

GCSE Geography Edexcel B

• GCSE Geography Edexcel B was published in 2009, for the 2009 specification.
• The new 2012 specification shows no significant changes, apart from the removal of the coursework requirement.
• Therefore, the current edition of GCSE Geography Edexcel B doesn’t fully meet the requirements of the new spec.
• However, it can still be used for parts of the spec content – mainly in Unit 1.
• We’ve put together a table showing a summary of the changes to the spec and where the current edition of GCSE Geography Edexcel B can still be used. Please visit www.oxfordsecondary.co.uk/gcsegeographyedexcelb to view it.
• In short, some chapters still match the spec quite closely (although there are minor modifications to all topics), some chapters are now lacking key content, and some chapters are now redundant.
• So, because you need books that properly match the new spec, our authors are hard at work writing a new edition of GCSE Geography Edexcel B.
• The new edition will publish in spring 2013. For further information, including free new content to support your teaching of Unit 1, please see www.oxfordsecondary.co.uk/gcsegeographyedexcelb or email fiona.mccollum@oup.com – we’ll be pleased to hear from you.

GCSE Geography OCR A

• GCSE Geography OCR A was published in 2009, for the 2009 specification.
• The new 2012 specification has significant content changes, including brand new content.
• Therefore, GCSE Geography OCR A doesn’t fully meet the requirements of the new spec.
• However, it still works for parts of the spec content, and some chapters are still very appropriate. Please visit www.oxfordsecondary.co.uk/gcsegeographyocra to see a spec-matching table.

GCSE Geography OCR B

• GCSE Geography OCR B was published in 2011.
• The new 2012 specification has no brand new content.
• The major change is in the controlled assessment requirement, which is now just Fieldwork Focus (which must include the collection of primary data) – the Geographical Investigation has been removed.
• This change means that chapter 3 in GCSE Geography OCR B is no longer needed.
• However, the rest of the book is still very appropriate, and you can use it to teach the new spec with confidence.

GCSE Geography AQA A

• GCSE Geography AQA A was published in 2011.
• The new 2012 specification shows no significant changes in content.
• The structure and assessment are also very similar to the old spec.
• Therefore, GCSE Geography AQA A meets the requirements of the new spec.

We would advise that you check the exam board websites for full details and other changes, such as length of exams, removal of optionality, and marks available.

All change in the Arctic

Cut out and sort the following statements according to whether they are:-

• Positive or negative • Short term or long term • Economic, environmental or social

<table>
<thead>
<tr>
<th>If Greenland’s ice sheets melt, sea levels around the world will rise by 7 metres.</th>
<th>If the average global temperature rises by another 4°C, up to 70% of species may become extinct.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting of the Arctic sea ice is causing changes in global weather patterns. This may explain why the UK is experiencing wetter summers and drier winters.</td>
<td>As the ice sheets are melting, the Arctic’s precious reserves of oil, gas and metal ores can be accessed more easily.</td>
</tr>
<tr>
<td>As the Arctic’s frozen soil (permafrost) is also melting, large amounts of methane gas are released which is speeding up global warming.</td>
<td>As the Arctic becomes more accessible, tourism is likely to increase in the future.</td>
</tr>
<tr>
<td>Some homes, schools and hospitals in Arctic areas are falling down as the permafrost beneath them is starting to thaw.</td>
<td>Polar bears have less ice to live and breed on so their numbers will fall even further.</td>
</tr>
</tbody>
</table>

Research activity

Use the internet to find out what is meant by ‘geo-engineering’. Choose one example of a geo-engineering solution and explain how it may help to slow down global warming.

Find free literacy support at www.oxforddictionaries.com/schools.