

## Future of low carbon energy

### Lesson Plan

#### Lesson2: Carbon Capture and Storage

<b>Aim</b>	To consider Carbon Capture and Storage (CCS) as a means of reducing carbon emissions and providing sustainable energy security in the UK.
<b>Objectives</b>	<ul style="list-style-type: none"> <li>To devise geographical questions about CCS</li> <li>To consider the arguments for and against CCS</li> <li>To evaluate the potential for CCS to provide sustainable energy security in the UK</li> </ul>
<b>Starter 10 mins</b>	Students are given an information sheet about Carbon Capture and Storage (CCS) (taken from the website). They read through the sheet and then write down a number of questions that they have about CCS as a result of what they have read. Students are then given three post-it notes on which they are told to write three questions that they have come up with. The post-it notes are stuck on the wall and students are given the opportunity to read the questions posted by their peers
<b>Main 40mins</b>	Divide the class in two; half the class are going to put together their case for CCS and the other half, their case against CCS. Both groups need to consider the viability of CCS as a way of reducing carbon emissions, whether they think it is something that should be developed further in the UK and if it will provide sustainable energy security. The two halves of the class should sub-divide themselves further and look at specific aspects of their argument. Students should be provided with the resources outlined below and reminded to keep in mind the questions they formulated at the start of the lesson. Students have 30 minutes to research and put together their arguments. Each group makes a 5 minute presentation to give their argument. Students should be encouraged to question their peers. They should also take notes of the counter argument.
<b>Plenary 10 mins</b>	The teacher directs the students' focus to the wall with the post-it notes and chooses a variety of questions which the students should now be able to answer. After a selection of questions have been answered students should be encouraged to give their own opinion as to whether CCS is a viable option to reduce carbon emissions, whether they think it is something that should be developed further in the UK and if it will provide sustainable energy security?

### Resources

#### For starter activity

- [Carbon Capture and Storage](#) - students to read 'What is CCS? and What might CCS look like?' ONLY

#### For both groups

- [National Grid to pipe carbon dioxide emissions under North Sea](#) Times article
- [First 'clean coal' power station gets go-ahead](#) Times article

- [UK and China work on carbon capture](#) Telegraph article
- [Coal power stations must have carbon capture and storage, Environment Agency says](#) Telegraph article

#### For groups arguing for CCS

- [Carbon capture and storage moves a step closer](#) Telegraph article

#### For groups arguing against CCS

- [New coal power stations to be built which may not cut emissions](#) Telegraph article