**Sewage in the news**

**Lesson plans/Teachers’ Notes Key stage 3**

**Overview of the resource**

Geography in the news is designed to give teachers a topical and entertaining online information and activity source. It will help to support the National Curriculum’s requirement for the flexible inclusion of current global and Welsh issues into pupils’ geography lessons in addition to more formalised schemes of work, and/or may be used to stimulate extended work within schemes or work.

Each edition contains a main theme and 2 linked articles each of which forming the focus for lesson activities. In addition, a Global current events screen can be used on a regular basis as a home page or lesson starter stimulus. The ‘Brainbox’ links may form entertaining wider geography discussion points, for instance, as end-of-lesson activities.

Key Words are highlighted within the resources and have been defined in a glossary on in the interactive resources. Website links are included at key points in the resources to facilitate further research on selected topics.

**Main Theme**

The principle National Curriculum links are:-

Range

* ‘Living in Wales: their local area\* and an investigation of at least one aspect of the geography of the whole of Wales’,
* ‘Describe the causes and consequences of how places and environments change, *e.g. by season; from past to present; the need for sustainability’*

Skills

* *‘explain the causes and effects of physical and human processes and how the processes interrelate, e.g. causes and consequences of tectonic activity, impacts of migration in Europe’*
* ‘explain how and why places and environments change and identify trends and future implications, *e.g. population increase,* *climate change, globalisation.’*
* **‘carry out:**
	+ at least one group investigation and one independent investigation into a geographical question or issue
	+ investigations into ‘geography in the news’, topical events and issues in the locality and the wider world’.
* **‘ask and answer the question -** what are the geographical issues for people living in this location? How and why do people’s views on issues differ and what do I think?’

The activities will offer learners opportunities to:

* Use ICT to be informed of current and relevant geographical relevant information and events.
* Develop both knowledge and informed opinions on a range of issues and suggested solutions to current geographical problems.
* Develop investigating skills related to current issues.
* Work independently and cooperatively.

**Suggested Learning Activities**

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| **Aims:** To understand issues surrounding sewage and wastewater and their disposal in the UK. |
| **Objectives:** The resources and suggested activities are designed to give students the opportunity to explore some factors regarding wastewater and sewage disposal in the UK. In particular, the articles and activities focus on the challenges of providing and maintaining wastewater infrastructure in the face of misuse of the system by organisations and the public. |
| **Resources required:*** **Online resources including interactive features in the Issue of Geography in the News**
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| **Resource** | **Suggested time:**  |
| **Sewage – fatberg alert!**The students should find out about one of the five types of wastewater (sanitary, industrial, commercial, agricultural, surface runoff) using the hyperlinks in the article and other information sources.Find out:What that type of wastewater contains, how it is disposed of, how much is produced each year etc.Students should collect the information, articles and pictures in a Powerpoint presentation to refer back to in the next two activities.  | This activity is designed to be completed during class, although it could also be used as a homework assignment as well in preparation for the next lesson. |
| **Down the drain...**Following on from the previous activity, students should find out how their chosen type of wastewater might cause blockages in drains, sewers or watercourses if not disposed of correctly.They should also find out what the particular risks are (pollution, disease etc) of their waste if blockages and/or flooding does occur.Using text and images the students should produce a poster about their chosen category of wastewater which includes some of the information that they have collected.  | This activity is designed to take a one hour lesson and possibly some follow up homework to complete the poster. Alternatively this could be finished in class in a later lesson |
| **Unblocking the problem**Working in small groups, students should follow the links in the articles and look at the education and advice campaigns being run by different water companies. The groups should consider who the campaign is aimed at, what it is trying to achieve and the types of resources and materials that are used. They should also discuss whether or not they think the campaign will be effective and what could be done differently.The groups should make notes from their discussions then design their own leaflets to tell people about the problems caused by misuse of the sewage system. | This activity is designed to take two one hour lessons. Alternatively the leaflets can be designed individually as homework. |
| **Notes:**  |