Welcome to our very first of e-newsletters specifically for schools in and around the Burren. This exciting newsletter will come out at the beginning of each school term and will hopefully give you some handy tools and resources to get your students enthused by the great landscape around them and all the amazing things that exist within it. Please spread among your teachers and students. Each term the newsletter will have a different focus. This Autumn term the focus will be on geology, landscape and places around us, the exciting things we can discover about them and how this ties in with the SESE Geography curriculum. The Spring newsletter will focus on archaeology, built heritage, people and places, and how this ties in with the SESE History curriculum. Finally, as the Summer term is the best term to get outside, the newsletter will focus on plants, animals, conservation and land management, and how this ties into the SESE Science curriculum.

This newsletter is split between helpful tips for the teachers and games & activities for the students, the Young Burren Explorers. We hope you find this newsletter useful...

Bring the Burren into the classroom & the class out to the Burren with this Young Burren Explorers Newsletter!

Here are some useful options to think about before you get stuck in:

- **Ecobeo**: this 20-week Burren heritage in schools programme is completely free to the school and parents (worth €2,500). It fully complements your curriculum so don’t miss out, get your class application in by the end of Sept. This is for the oldest class in the school. For more info, email us or see the letter sent to the school with this letter.

- **#BurrenInsideOUT**: This is an initiative aimed at getting children from different parts of the Burren to take a picture of what interests them in their area - an interesting Burren plant, animal or building near to their home or school over a period of 10 weeks, and ‘nature tweet’ what they see there. This will give schools in different parts of the Burren a chance to see what is going on elsewhere. It can be done by a class or by an individual. For more info to register for this, email us.

- **Burren Wildchild**: If you want to get your children out and about in the Burren with Burrenbeo, you can get a Burren WildChild day subsidized by the Heritage in Schools Scheme. Any bookings for the Autumn term have to be in by the 30th September to avail of this subsidy. For more info, email us.

- **Schools membership**: A school membership includes free talks, discounts on Burren Wildchild and other benefits. Bronze membership is €100, Silver is €180 & Gold is €280. For more details, email us.

- **Direct contact**: We are only printing this once. If you wish to receive this newsletter send us your email address & we'll send it directly to you in future terms....

**CONTACT US:** trust@burrenbeo.com / 091 638096

Or search www.burrenbeo.com for more online resources
Classroom Exploration: Landscape & Geology

Why do you think the Burren is so special? It has monuments that are older than the pyramids, it has a large amount of caves, flowers and insects, some of which are very rare. The Burren is a remarkable place where ecology, archaeology, agriculture, history, food and music are deeply rooted in the landscape and culture of the region. Your students live here, this is their Burren, their heritage. It is incredibly important that they learn about the Burren to better understand and appreciate what a unique place it is. Let’s start with the oldest and most original elements of this place, the landscape and underlying geology.

The term ‘Landscape’ refers the visible features of land whilst geology looks at the non-visible as well. Landscape can be divided into layers from the high mountains and hills, down to ground level with visible soils, rocks and fossils and then the geology goes lower still to the underground caves and water systems etc.

The Burren is a great landscape to look at, because the rocks and the features are so obvious, and have so many stories once we start looking for clues.

Split the class into groups or pairs, do a simple survey in the classroom of what visual landscape elements your class can identify locally? What shapes/natural features (eg rivers, lakes, woodland) can they see about them, and do they know about in the area. Get them to report these back to the group.

Limestone is the local rock in the Burren. Can they find out 5 features associated with limestone (some ideas below/more on www.burrenbeo.com), and then draw a Burren landscape highlighting these features. What landscape features are connected to this rock type?

Does the rock type have any impact on the lives of the plants/animals/people in the area? Make connections between the plants, animals and people that are in the Burren and how they are influenced by the rock type.

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Clints  Glacial Erratic  Fossils
Runnels  Turlough  Grykes
#BurrenInsideOUT 1x 10 Challenge

Basically this challenge is about spending 1 hour outside for 10 weeks and reporting back the findings:

* You can either put it out to the whole class or individuals can do it by themselves. You can get them to do it during class time or at home in their own time.
* They find something near to their school ground or their home that they want to observe (this could be a monument, a tree, an erratic, a turlough etc).
* They then take a while to observe it, what can they see from the viewpoint of the item.
* They take a photo and upload it to the designated platforms. (Contact us for details)
* Then they ‘nature tweet’ about it from the viewpoint of this chosen thing ie Two robin redbreasts landed on me today. And my leaves are starting to go brown.
* Each week for 10 weeks, they upload the tweets to a social media platform which we send you when you register an interest in the project. The aim then is that children observe something over a period of time in nature but also to see what others have chosen both in their own class and across the Burren.
* It is giving them skills in observation, and ICT. It can also fulfill curriculum requirements of science and geography.

And/Or

The Winterage Weekend poster: ‘Burren Cattle are moo-ving for the winter’

The Burrenbeo Trust coordinates the annual Burren Winterage Weekend (24th-26th October, 2015) to highlight the importance of pastoral farming in the Burren. As part of this we are encouraging students to do a poster competition that will be displayed over the weekend. The best poster will receive free entry to the Castle Capers event for their family on the 25th October and a free Burren Wild Child day in the school for their class during the following term. These posters should be A4, coloured, with their name, age and school on it. Posters are a suggestion, as we welcome all forms of creative outputs, they can also include captions, funny anecdotes etc. The subject matter should be cattle and winterage. Final entries must be in by the 15th October to Burrenbeo Trust, Main St, Kinvara, Co.Galway.

Interesting fact…..Did you know that even though England is twice the size of Ireland, Ireland has 10 times more exposed limestone, and most of that is in the Burren!
The day in the life of a Burren GEOLOGIST?

Eamon Doyle is a geologist in the Burren. He works with the Burren Geopark in Ennistymon. For more information go to www.burrengeopark.ie

What do you do as an geologist in the Burren?
I study the rocks; how they formed and what they tell us about how the Burren has evolved over 100’s of millions of years. I also prepare information signs for the Burren and put information on our website and organize fieldtrips to explain the geology to anybody who is interested.

How did you get interested in geology?
When I went to University I overheard somebody talking about going on a geology fieldtrip. It sounded interesting so I went!

What is the best thing about your job?
Going out in the Burren and finding new and interesting things in the rocks that nobody has noticed before.

What do you think is the most interesting fact about geology in the Burren?

What are you favourite geological feature in the Burren, and why?
The caves. They vary from very short narrow ones to the longest in Ireland at 16km. Some are ten thousand years old and others more than 1 million years old. Many are still forming today. They are the result of ordinary rain falling over very long periods of time. They are important in understanding groundwater processes as well as many of the surface features of the Burren and when you go inside a cave you get a view of the rocks that you don’t get from the surface.

What are your favourite geological feature in the Burren, and why?
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What do you think is the most interesting fact about geology in the Burren?
A small fossil fly was found near Doolin in 1993, it is over 300 million years old and is one of the first flies that evolved the ability to fold its wings back. Before that flies were all like dragonflies with their wings sticking out to the side.

Or

There is evidence in the limestone rocks that there was a huge ice age over 300 million years ago. On top of those limestone rocks we have evidence of the last major ice age around 18,000 years ago. Two massive ice ages in the Burren separated by 300 million years.

Can you guess which fossil comes from what coral....

1.________________
2.________________
3.________________
4.________________

Did you know?
That the rocks formed in the Burren are 340 million years old!
Over 300 million years ago, Ireland was located near the equator and it was covered by a warm shallow tropical sea. When the creatures that lived in this sea died, they sank to the bottom of the sea where they decayed but left parts of their hard shells and bones. This mixed with sea water deposits (calcium carbonate) squashed together to form limestone at the bottom of the ocean. Sometimes you can see the shells of the animals in the limestone rocks – these are called fossils. Imagine, these fossils are older than dinosaurs! And they’re in the Burren — now that is cool!

Interesting fact…..The fossils in the Burren are older than dinosaurs!

Answers:
1. Colonial Coral
2. Brachiopod
3. Solitary Coral
4. Crinoid
What do you know about the Burren’s geology?

See if you can discover the answers. Then fill in the blanks and find all the missing words in the maze.

1. Limestone is made up of the ancient remains of marine life that lived in the sea over 300 million years ago. Today we can still see the remains of these animals and plants in the rock. They are referred to as ___ ___ ___ s.

2. One of the most unusual features of the Burren are the ‘disappearing lakes’ which fill up from underground swallow holes after heavy rain. They are called ___ ___ ___ ___ ___.

3. When rainwater falls on limestone it slowly dissolves the rock. Over time this can create very large features in the landscape. Scientists and geologists call this type of landscape - a ___ ___ ___ landscape.

4. Areas of limestone pavement in the Burren are made up of big blocks of rock called ___ ___ ___ that are separated by deep crevices and cracks called ___ ___ ___.

5. During the last Ice Age (which ended over 10,000 years ago) massive thick sheets of ice called ___ ___ ___ ___ carried rocks from as far away as Connemara and dropped them in the Burren when the ice melted.

6. When these ice sheets melted they dropped large boulders known as ___ ___ ___ ___.

7. The name Burren comes from the Irish word ___ ___ ___ ___ which means place of stone – it is easy to understand why this name came about!

8. When water drips from the roof of a cave – each drop leaves behind a tiny bit of calcite – which eventually forms a ___ ___ ___ ___ ___ - Doolin Cave – it is ___ ___ metres long.

The longest of these in Europe is found in ___ ___.

Answers to Quizmaster:

1. Fossils
2. Turloughs
3. Karst
4. Clints & Gykes
5. Crete X
6. Erratics
7. Boireann
8. Stalactite

More information on our educational resources and services can be found at www.burrenbeo.com

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