

BioBuzz Aibreán 2025



BEST – Bioeconomy Education and Sustainability Teachers Network: Giving a Voice to All

Hi everyone and welcome to a very special edition of BioBuzz! April, 2025 was the final month of the BioBeo project. We have been bringing you a sprinkle of the events and a selection of the amazing resources that have been produced over the last few years in each edition but as the project is wrapping up, we wanted to bring you a more in depth look so you don't miss out! So relax and check out the huge variety of educator resources, interactive apps, games, videos and much more! Hear from lots of the project partners and see what they have been getting up to! You can continue to find all the past editions of the newsletter [here](#).

Student Blended Intensive Programme in Rotterdam University of Applied Sciences (RUAS)

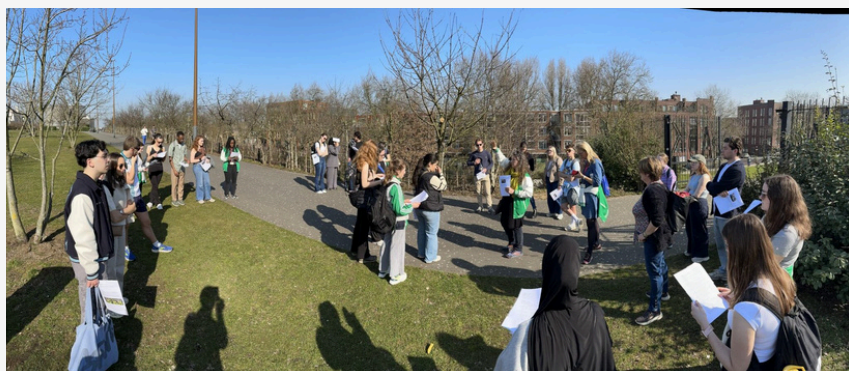
Here at RUAS we worked together with partner universities in Belgium and Ireland on this project. The various partners have designed teaching materials about sustainability and circular bioeconomy. Cartoons and comics were made in all participating languages and the material has been widely distributed through various events. For us, this has led to a number of adjustments in the curriculum, even in the National Curriculum!



Students of Geography, Biology and Economics participated in a Blended Intensive Programme (BIP) in Maynooth University, Ireland in March 2024 and in March 2025 we organised an 8-day BIP in Rotterdam for 33 students, in which Irish and Belgian teacher education students and 10 RUAS students from various courses participated. They received a varied programme. What has our contribution to this project yielded for our students in teacher education? We can best illustrate this with feedback from a student who participated in the BIP in March.

Student Juric, a mathematics teacher:

I hope to guide my students to become responsible, critically thinking and solution-oriented individuals who contribute to a sustainable future. As a future teacher,, I believe that three key competencies are essential for educating students about sustainability: critical thinking, adaptability, and systems thinking.



- *Critical thinking helps students question information, recognize biases, and challenge unsustainable practices. It allows them to analyze problems in-depth and make informed decisions. Adaptability is crucial in a world facing ongoing environmental and social change. Being flexible and open to new solutions helps students to deal with uncertainty and make better choices.*
- *Systems thinking encourages students to see the bigger picture: how the environment, society, and the economy are all connected. This helps them understand the long-term impact of their actions.*

Biobeo Animations: Big Ideas for a Greener Tomorrow

What if kids could learn about saving the planet through colourful adventures, talking dog, and clever cartoons? The Biobeo project makes that possible with a playful series of animated videos that turn big bioeconomy ideas into fun, bite-sized stories for young minds.

Available on [YouTube](#) and the [Biobeo website](#), these animations introduce young learners to important topics like climate change, biodiversity, circular thinking, and sustainable living.



Each video is rooted in one of Biobeo's five core themes—from ecosystems to responsible consumption—and is designed to spark curiosity and conversation. Through bright visuals, friendly narration, playful song, and storytelling magic, the series invites kids to explore how the natural world works—and how they can help protect it. Whether it is learning, where our food comes from or how we can reuse what we have, these short episodes connect everyday choices with the bigger picture of building a greener future.

Perfect for classrooms, homeschooling, or curious families, Biobeo's animations are more than just educational—they are empowering. They help young viewers see themselves as part of the solution. Ready to journey into the world of bioeconomy? Dive into the full playlist [here](#) and let the learning adventures begin!

Parents International Educator Resources

At Parents International we are happy and honoured having been part of the three-year BioBee adventure. Now that the project has wrapped, we welcome the opportunity to draw attention to a few exciting updates.

First the [Train the Trainer manual](#) designed to provide action-oriented training on the theory and practice of advocating for including Bioeconomy Education in curricula building on the strength stakeholder involvement brings to such activities. It includes self-directed learning elements for trainers and detailed descriptions of training activities, with tips and practical ideas.

[The Missing Link](#) – A Practical Guide for Teachers on How to Teach Bioeconomy, developed by Parents International with the support of the Foundation for Environmental Education, details strategies for embedding bioeconomy topics across a range of learning areas, practical checklists and step-by-step methodologies to enhance student involvement, and provides innovative techniques for increasing parental and community engagement.



Parents International is also active in disseminating BioBee's knowledge and outputs both within and beyond the borders of the EU. To mention two recent examples, BioBee features regularly in the Life Skills training that IPA provides to Lithuanian teachers in cooperation with the Vytautas Magnus University, and the project's outcomes have been shared with an audience of 600 professional educators during a training session in Atyrau, Kazakhstan, in March 2025.

If you want to learn more about Parents International you can follow them on LinkedIn [here](#), or on Facebook [here](#).

Unleash Young Minds with Biobeo's Creative Learning Tools!

Youth in Science and Business Foundation (YSBF)

What do idea-sparking techniques, policy advisory recommendations, and science experiments have in common? They are all part of Biobeo's inspiring toolkit to help students explore the circular bioeconomy in exciting, hands-on ways.

Biobeo's resources are not just about learning—they are about doing, imagining, and influencing. Through creativity techniques for idea generation, learners are guided to think big, dream bold, and collaborate on green solutions that could shape the future.

Who says saving the planet cannot start with a doodle, a sticky note, or a wild "what if"? For budding changemakers, the policy memo activity helps to turn students into young advisors, crafting clear, convincing messages aimed at real-world decision-makers. It is a chance to learn how to create insightful suggestions, so they can drive real environmental change with the help of their ideas.

Where does *Creativity* come from?



And then there is the magic of hands-on experiments. With simple, classroom-friendly activities, students explore the surprising potential of bio-based products—from compostable plastics to natural materials that could replace fossil-based ones. It is science that feels like discovery. These creative tools are suitable for classrooms, eco-clubs, or any learning space where curiosity lives. If learners love to invent, write, or experiment, there is something here to spark their passion. Ready to jump in? All resources are freely available [here](#). Empower your students to imagine a greener future—and help them build it, one idea at a time.

If you want to learn more about YSBF you can check out their website [here](#).

Conas Fíodóireacht mhaide a chruthú

Scríobh Ailbhe, Ciara, Emma, Rachel agus Shauna an t-alt seo. Is scoláirí oideachais iad i Roinn Froebel, Ollscoil Mhá Nuad.

Réamhrá:

Is cleachtas iontach nádúrtha é fíodóireacht mhaide. Úsáideann tú ábhair nádúrtha agus athchúrsáilte. Sa saothar ealaíne seo, úsáidfimid ábhair ón dúlra. Beidh ceithre mhaide, rópa tanaí nó olann, agus bláthanna nó duilleoga mar phríomhábhair againn. Déanfaimid fráma simplí le greille olla chun ár maisiúchán a fhí. Is bealach álainn é seo chun an dúlra a cheiliúradh trí ealaín.

Ábhar:

- 4 Mhaide in aghaidh an fhráma
- Rópa tanaí nó olann
- bláthanna , duilleoga agus ábhair eile ón dúlra



Treoracha:

1. Bailigh ceathair mhaide ón dúlra.
2. Cuir na maidí beaga le chéile i gcearnóg le spás sa lár.
3. Ceangal na cúinní le chéile leis an olann nó rópa.
4. Chun an greille a chruthú, cuir píosa olla ó thaobh amháin go taobh eile den fhráma, ag déanamh cinnte go bhfuil sé ceangailte go daingean timpeall an mhaide.
5. Ansin, Bailigh bláthanna , duilleoga agus ábhair eile ón dúlra mar mhaisiúchán.
6. Sníomh isteach iad idir an olann chun cibé dearradh a chruthú 😊
7. Nuair atá tú críochnaithe, croch do shaothar ealaíne taobh amuigh!

Gníomhaíochtaí breise:

- Ainmnigh na plandaí a bhailigh sibh don saothar ealaíne
- Cén crann ar tháinig na duilleoga as?
- Is féidir libh an gníomhaíocht seo a dhéanamh sna séasúir éagsúla agus is féidir libh na hathruithe a thaifeadadh sna dialanna foghlama.





Stick Weaving



This piece was written by Ailbhe, Ciara, Emma, Rachel and Shauna, students of the Froebel Department in Maynooth University

Introduction

Stick weaving is an excellent and well-rounded practice of circularity, using natural and recycled materials. In this artwork activity, we will utilise our bioeconomy through the reuse of materials from nature. There are four wooden sticks, a skinny rope or piece of wool, and flowers or leaves as our main materials. We will create a simple frame with a woolen grid to weave in our decorations. This is a fabulous way of celebrating nature through art.

Resources

- 4 small twigs to create a frame
- Thin rope or wool
- Flowers, leaves or other items from nature.



Instructions:

1. Gather some twigs outdoors. You will need about four of them.
2. Put the twigs together and place them in a square formation with a space in the centre.
3. Interlink the corners with wool or rope.
4. To create the grid, tie a piece of wool from one side to the other.
5. Then, collect some flowers, leaves and other materials from nature as decoration for the weaving frame.
6. Weave these materials in between pieces of wool or rope to whatever design your heart desires 😊
7. When you are finished, hang your artwork piece outside in the beautiful outdoors!



Growing Mushrooms Sustainably: A Teacher's Manual for the Classroom

Developed by Technical University Berlin

Unlock the potential of sustainability in your classroom with our innovative teacher's manual on growing mushrooms sustainably on spent coffee grounds. This guide empowers educators to introduce students to practical, hands-on sustainability practices while enhancing their understanding of vital environmental concepts. By using spent coffee grounds—a common waste product—as a growing medium, this manual promotes the idea of closing food loops. Students will learn how organic waste can be repurposed, contributing to circular economies and reducing food waste. The hands-on experience fosters deeper engagement with the principles of sustainability, food production and nutrition, waste reduction, and resource conservation. Beyond environmental impact, this aligns with core bioeconomic principles, demonstrating how biological processes can be harnessed for economic and environmental benefit. As students witness the transformation of waste into nutritious food, they gain insights into the interconnectedness of nature, economics, and sustainable practices.



This manual gives guidance to teachers on how to grow mushrooms on coffee grounds in class and equips them with the tools to teach and apply sustainable development principles in the daily lives of their students. With the help of background information, clear instructions and information on trouble-shooting, recipes, work sheets, and exemplary lesson plans, this classroom project is easily implemented in class and encourages critical thinking about how we can close material loops, reduce waste, and create resilient food systems for the future. Give your students the opportunity to grow food, grow knowledge, and grow sustainability with this educational tool. Find the manual [here!](#)

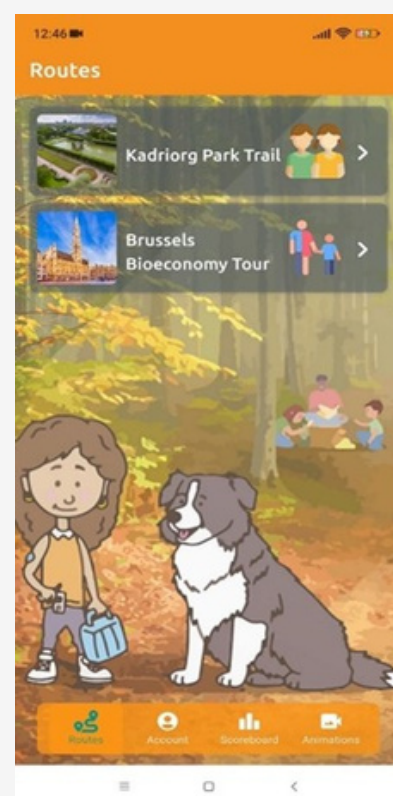
Discover, Learn, and Explore with the Biobee App & Dashboard

Developed by Youth in Science and Business Foundation (YSBF)

The Biobee App offers a fun, educational adventure for young minds who can explore nature and cities and learn about the bioeconomy. With the app, children can choose from various trail routes tailored to their age and location. As they visit different points of interest in their surroundings, they will learn about biodiversity, sustainability, and the natural world, all while answering quizzes related to bioeconomy concepts. The locations can also be accessed virtually.

To create geospatial educational journeys, the Biobee Dashboard is an essential tool for educators. It allows teachers to create custom routes for students, complete with various points of interest and quizzes. Educators can assign these routes to students, encouraging them to explore their local environment while learning about the bioeconomy. Each quiz reinforces key sustainability themes, helping students to engage more deeply with the material.

With routes categorised as child-safe or requiring adult supervision, the app ensures that learning is both fun and safe. Whether in the classroom or outdoors, the Biobee App and Dashboard work together to make the study of bioeconomy a dynamic, hands-on experience. Ready to turn outdoor exploration into an educational adventure? Learn more about the Biobee App and Dashboard at www.biobee.eu/further-resources/applications/



Sowing the Seed by Edwina Guckian (Part 2)

Enjoy reading below about the work in Ireland to revive and continue traditions!

If you missed Part 1- you can find it in last month's edition [here](#).

I planned a Meitheal; to gather a few friends, prepare the soil and set about sowing oat seed that March 2019 but Covid 19 halted that idea fairly fast. Instead, I turned my mind to researching the strawing traditions of Ireland. The very people I was reading about at the time, those rural people that kept these strawing traditions alive, were the very people now under severe restrictions in a frightened world; being isolated in their homes, not allowed to leave and not allowed visitors. And so I joined my great friends and musicians Fionnuala Maxwell and Brian Mostyn for a year of road trips across Leitrim calling from house to house as the Modern Day Mummers. We sang, danced, played tunes and chatted on the door steps of Leitrim's oldest generation dressed in the straw costumes that I had made in February. The welcomes were heart - warming. They opened the doors with smiles, some peeped out curtains, others tried their best to invite us in for tea, they laughed, cried, danced, clapped along, some took out their instruments and joined us, others just wanted to spend the day talking and a few even asked if they could come with us for the day. It did as much good for the 3 of us as it did for them. While the pandemic is a year the world will never forget, I will always remember it for that wonderful generation of people I was blessed to meet across the county and all they shared with us during such a vulnerable time.



In Spring 2021, Creative Ireland and Leitrim County Council provided me with funding to buy oat seed. With the help of Fionnuala & Brian, we put a call out to people and communities across Leitrim to join the project and set about distributing the seed at several locations from the top to the bottom of the county. And it has been going and growing in numbers and creativity since. There was even some smugglers at the distribution points sending seed over to Roscommon! Over 600 people are now taking part in Sowing the Seed project with many joining in from outside Leitrim too.

Outside of Ireland in fact. Communities have taken on the project in the Norway, Finland, Scotland and the U.S with many collaboration planned over the coming years.. Each Autumn we harvest the oats together and hold a harvest dance to celebrate. Then the many stooks of oats hang from the rafters in sheds across Leitrim waiting for their day to come. Come Winter, we gather together and make the mummer hats in communities from the top to the bottom of the county. Then at Christmas groups of us take to the roads of Leitrim calling to people's homes with a tune, step, story and a dance on their doorstep, bringing them good luck for the new year.

The tradition is growing each year with more and more joining us on the roads. A community of Ukrainians even formed their own Mumming group this year in Carrick on Shannon.

When all the Mumming is done, we celebrate with the Mummers' Parade and the Mummers' Join. A very fitting end to a wonderful year of farming, creating and celebrating together.

In Spring 2025 we'll once again be distributing the oat seed across Leitrim and all are welcome to join the project.



YOU CAN FIND OUT MORE ABOUT THE SOWING THE SEED PROJECT AT THEIR WEBSITE [HERE](#).



Scríobh Matthew agus Rory an t-alt seo. Is scoláirí oideachais iad i Roinn Froebel, Ollscoil Mhá Nuad.

This piece was written by Matthew and Rory, students of the Froebel Department in Maynooth University

Réamhrá

- Smacht nádúrtha ar fheithidí: Itheann ialtóga feithidí ar nós cuileoga, míoltóga agus leamhain. Is féidir le hialtóg amháin suas le 3 trí mhíle cuileog a ithe i gceann oíche amháin. Tá sé seo thar a bheith tairbheach do ghairdíní agus fheirmeacha.
- Foirgneamh inbhuanaithe: Tá tábhacht ag baint le cosaint ar ainmhithe dúchasacha. Trí bhosca ialtóg a chruthú cuidíonn tú leis an mbithéagsúlacht agus cabhraíonn tú le speicis atá i mbaol.
- Oideachas agus breathnóireacht: Tugann bosca ialtóg deis iontach do pháistí agus don phobal foghlaim faoi na hialtóga.

Introduction

- Natural pest control: The main food source for bats is insects such as flies, midges and moths. A single bat can eat up to 3,000 flies in one night.
- Sustainable habitat: Protecting native animals is important. By creating a bat box, you help biodiversity and support the conservation of species that are at risk of losing their natural breeding place.
- Education and observation: A bat box offers a wonderful opportunity for children and adults to learn about bats and observe them in their natural habitat.

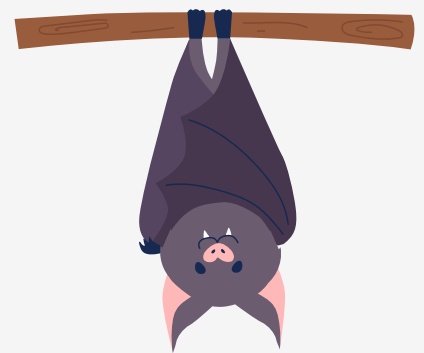
Conas é a chruthú

1. Úsáid adhmaid neamhchóireáilte (sraithadhmaid)
2. Cruthaigh bosca
3. Fág bealach isteach timpeall $\frac{3}{4}$ orlach (1.9cm)
4. Bí cinnte go bhfuil uigeacht gharbh taobh istigh
5. Cuir péint dhorcha taobh amuigh
6. Cuir an bosca ialtóg in airde ar chrann nó ar bhalla, in áit ghrianmhar



How to make

1. Use untreated wood (plywood)
2. Create a box with a lot of space inside (two feet in width and length)
3. Leave an entrance about $\frac{3}{4}$ inches (1.9cm)
4. Make sure the interior has a rough texture
5. Paint the outside dark
6. Mount it 10-15 feet high on a wall or post, in a sunny place

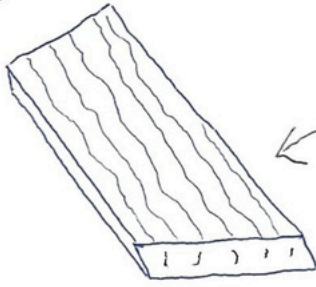




Bosca Ialtóg/Bat Boxes



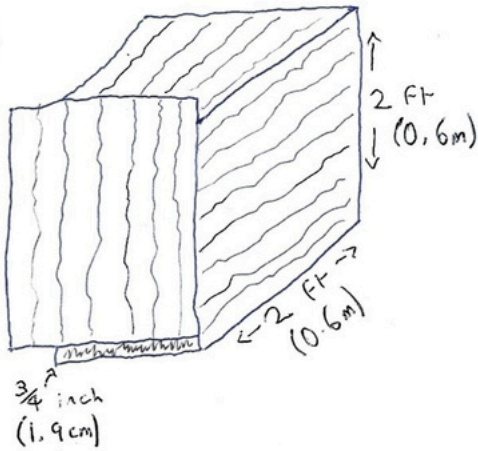
①



• Adhmaid neamhchóireáilte

• Untreated Wood

②



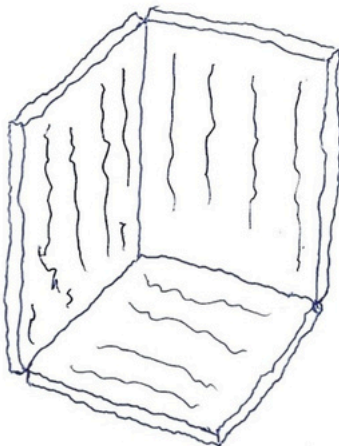
• Crothaigh bosca

• Bealach isteach $\frac{3}{4}$ orlach

• Create a box

• Leave a $\frac{3}{4}$ inch entrance

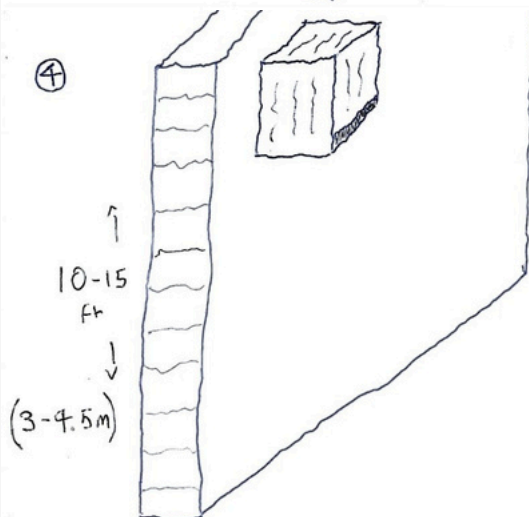
③



• Uigeacht gharbh taobh
istigh agus péint
dhorcha taobh amuigh

• Rough texture inside
and dark paint
outside

④



• Cuir in airde
ar chrann nó ar
bhalla, in áit ghrianmhar

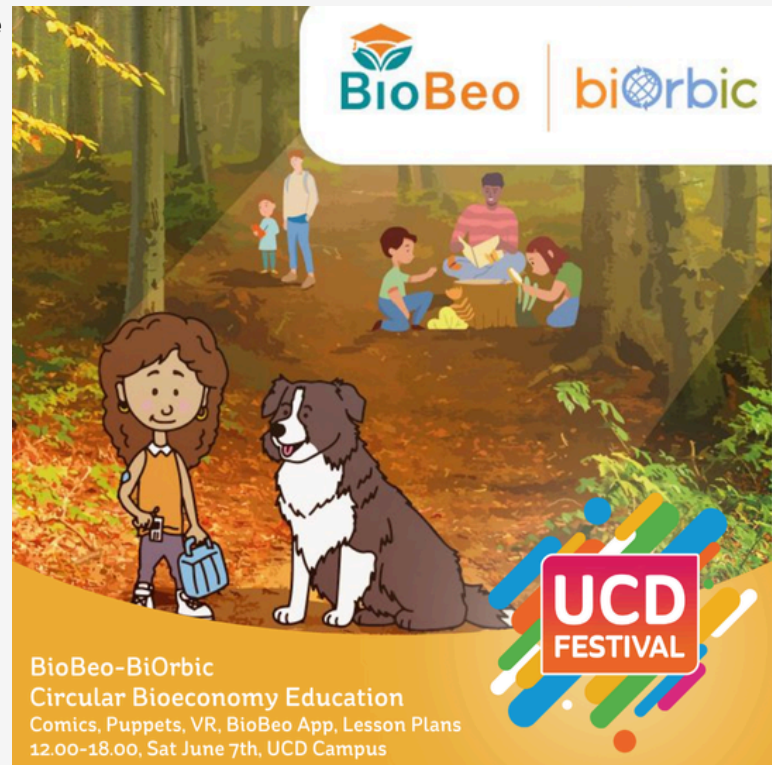
• Mount in a high
spot on a tree or
wall, in a sunny place

UCD Festival on Saturday, June 7th

If you are in the Dublin area, why not drop by the UCD Festival on Saturday, June 7th from 12 to 6pm. This is a free event that is open for all to attend. Be sure to visit the BioBeo- BiOrbic exhibit to get a first hand look at some of the comics and lesson plans mentioned in some of the earlier articles. You can even try out the BioBeo app on a woodland walk around the UCD campus.

As well as getting up close and personal with the best of Bioeconomy education, you can also check out the rest of the festival. Explore the worlds of human and animal medicine, the arts, and culture through live music, dance, poetry, exhibitions, and literary talks and more!

Register to attend and get further information [here](#).



Bioeconomy Matters Podcast



[Bioeconomy Matters](#) - your daily dose of sustainability! Tune in this month to hear all about development of Latin America's bioeconomy!

In [this episode](#), Dr. Tom Curran discusses the Horizon Europe BioBeo project, which aims to create an educational curriculum about bioeconomy. The project has already developed different educational resources, including comics, board games, and videos! Learning and teaching about bioeconomy can be fun!



Thanks for reading! You can subscribe or unsubscribe from the newsletter [here](#) and make sure you check out the BioBeo website by scanning the QR code! Buzz you again soon!



Q. What has pincers and grows on trees?

Answer: Crab apples

Q. What do you call a dead pine tree?

Answer: A "Nevergreen" tree

