

BioBeo's 'Beo's Bioeconomy Sing-Along' Video: Guidance Notes

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(Ages: 4-12, adaptable)



Beo's Bioeconomy Sing-Along



# Before Viewing...

### Introduction to the Bioeconomy

Begin by discussing the concept of the bioeconomy. Do the children know it? What do they know? You might then begin by explaining the concept of the bioeconomy to the children if necessary. Discuss how natural resources like plants, animals, and microorganisms are used to produce food, materials, and energy without harming the planet, in a much more sustainable way. Emphasise the importance of sustainability and circularity in these processes.

### **Exploring Interconnectedness**

Discuss the idea that all elements of nature are interconnected. Discuss how actions in one part of the ecosystem can affect other parts. Use simple examples like how bees pollinate flowers, leading to the growth of fruits and vegetables. Build a tower of cards in groups. If one card falls, what happens to the others?

#### Setting the Scene

Prepare the children for the song by discussing the different environments mentioned: forests, ponds, and gardens. Talk about the plants and animals that live in these areas and their roles in the ecosystem. Create a mind map using mentimeter.com

## During Viewing...

### **Active Listening**

Encourage children to listen carefully to the lyrics of the song. Ask them to identify the different elements of nature mentioned and how they are connected.

#### Visual Engagement

As the video plays, point out the illustrations that depict the various environments and their inhabitants. Highlight how the visuals correspond to the lyrics, reinforcing the message of interconnectedness. The children may wish to take notes of the elements that resonate with them.

#### **Interactive Participation**

Invite the children to sing along with the song, using simple hand movements or clapping to engage them further. This can help reinforce the concepts being presented in a fun and interactive way.

## After Viewing...

#### Discussion and Reflection

Lead a discussion about the song's themes. Ask the children what they learned about bioeconomy and interconnectedness. Encourage them to share their thoughts and feelings about the song.

#### **Creative Activities:**

#### **Art Project:**

Ask the children to create a collage or drawing depicting a bioeconomy ecosystem, incorporating elements like plants, animals, and humans working together.

#### **Role-Playing:**

Organise a role-playing activity where children act out different parts of the ecosystem, demonstrating how each component contributes to the whole.

#### **Extension Activities**

#### **Nature Walk:**

Take the children on a nature walk to observe the interconnectedness of the local environment. Encourage them to note how different elements of nature interact. Write a song based on their observations, photographs and drawings from their time in nature.

## **Gardening Project:**

Start a small garden in the schoolyard, allowing children to plant and care for various plants. Discuss how these plants contribute to the local ecosystem and the bioeconomy.

### Targeted Content: Flora & Fauna in the BioBeo Song

#### **Trees**

"Anáil isteach an ocsaigin ó na crainn, na crainn..."

"Breathe in the oxygen from the trees..."

**Key Concept:** Trees produce oxygen through photosynthesis and play a vital role in climate regulation and biodiversity.

**Curriculum Links:** Science (Living Things, Environmental Awareness); Geography (Natural Environments)

**Activity:** Conduct a simple 'respiration in plants' science experiment. Using 2 freshly fallen leaves, place in a glass jar of water. Use a brown leaf in a neighbouring jar. Weigh down the leaves with a small pebble. Observe the water around the leaves for the next few hours. Watch for bubbles of O2 rising from the leaves. Ask the children for a prediction of what they think will happen to the green leaves v the brown leaf. Ask them why?

#### **Edible Garden Plants**

"We plant an edible garden... sow the seeds and watch them grow"

**Key Concept:** Edible plants support both human nutrition and biodiversity (pollinators, soil health).

**Curriculum Links:** Science (Plants & Living Things), SPHE (Healthy Living), Geography (People and the Environment)

**Activity:** Grow fast-growing vegetables or herbs (e.g. lettuce, radish, basil) in class or outdoors. Track growth in a plant diary. Make sandwiches or salads after a few weeks.

#### **Bees**

"Food for the bees and for you and me"

**Key Concept:** Bees are essential pollinators and key to food production. Their decline poses ecological risks.

Curriculum Links: Science (Habitats, Biodiversity), SPHE, Geography

**Activity:** Make bee-friendly seed bombs or plant wildflowers. Observe pollinators in the school garden and record findings. Use the Draíocht Dara publication from Cogg.ie for a beautiful seed bomb lesson plan in Irish.

https://mural.maynoothuniversity.ie/id/eprint/16684/1/MaireNicAnBhairdDraíocht% 20Dara2021.pdf

#### **Natterjack Toad**

"A natterjack toad..."

**Key Concept:** This is a rare, protected species in Ireland. It lives in sandy, coastal habitats and shallow ponds.

**Curriculum Links:** Science (Habitats & Conservation); Geography (People and Places, Caring for the Environment)

**Activity:** Map where Natterjack toads live in Ireland. Discuss why they are endangered and what conservation means. Create natterjack toads in clay and paint them when dry. Display them around the school with information cards for other classes.

#### **Dragonfly**

"...and the dragonfly! O fly dragonfly!"

**Key Concept:** Dragonflies are indicators of healthy freshwater habitats. They begin life as aquatic nymphs.

**Curriculum Links:** Science (Life Cycles, Habitats), Geography (Water-based Environments).

**Activity:** Create the life cycle of a dragonfly using drawings or clay or bright luminous paints. Visit a pond and observe insect life (if safe and supervised). Submit your observations to <a href="https://www.biodiversityireland.ie">www.biodiversityireland.ie</a> and become citizen scientists!

#### Assessment

**Observation:** Monitor children's participation during discussions and activities to assess their understanding of the concepts.

**Creative Work:** Evaluate the children's art projects and role-playing activities to gauge their comprehension and ability to apply the concepts.

**Reflection:** Review the children's reflections and feedback to assess their personal connections to the themes of the song.

By following these guidance notes, educators can effectively use the 'BioBeo' song video to teach children about the bioeconomy and the interconnectedness of nature in an engaging and enjoyable manner.