



Lesson title	The green ark
Learning objective	Pupils learn about stewardship, and how botanic gardens act as stewards; they also learn some of the religious beliefs that support modern conservation efforts.
Pupils will:	Learn how humanism and some religions understand the concept of stewardship. Learn that there are choices to be made in order to both serve human needs and protect the environment.
Key words	Stewardship, endangered species, conservation, environmentalism

Plan	Resources
<p>Introduction Ask the class how they would feel if they woke up one day and all the gardens and trees where they live had disappeared? Ask if they know of any houses where the front garden has been paved over to make a space for parking? Play a YouTube video of the “Big Yellow Taxi” written by Joni Mitchell (see Resources). You can also show to the pupils the lyrics of the song (Resource 1).</p> <p>Explain to the pupils what inspired the writing of this song: The Canadian singer-songwriter Joni Mitchell got the idea for the song “Big Yellow Taxi” during a visit to Hawaii in the early 1970s. It is one of the most famous songs protesting about what humans do to the environment.</p> <p>In an interview she said: “I wrote ‘Big Yellow Taxi’ on my first trip to Hawaii. I took a taxi to the hotel and when I woke up the next morning, I threw back the curtains and saw these beautiful green mountains in the distance. Then, I looked down and there was a parking lot as far as the eye could see, and it broke my heart... this blight on paradise. That’s when I sat down and wrote the song”.</p> <p>Ask: what was Joni protesting when she wrote this song? Tell them what provoked her to write it. Point out that the ‘tree museum’ in the song was actually a botanic garden, and that modern botanic gardens dedicate a lot of their resources to conserving plants – especially endangered plants – for the future, and for this reason they can be considered to be green arks.</p>	<p>YouTube video of the “Big Yellow Taxi” written by Joni Mitchell. Counting Crows version of the song: http://www.youtube.com/watch?v=aJesFraW1Lo&feature=related</p> <p>Resource 1: Lyrics of the song “Big Yellow Taxi” written by Joni Mitchell</p>



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<p>Activity 1 Ask pupils: Why should we protect the environment? Look at the word 'conservation'. Point out that for some people conservation means to look after natural resources so that future generations have what they need to survive; others believe that nature deserves to be protected for its own sake (Resource 2).</p>	<p>Resource 2: Background information on the conservation movement.</p>
<p>Activity 2 Look at different quotes from religious texts about protecting the environment. Introduce the term 'stewardship' (Resource 3). Explain that modern environmental conservation began with scientific forestry methods dating to the 17th and 18th centuries. These scientific theories developed as more became known about the environment and the damage that could be done to it by industrial processes and over-use of natural resources.</p> <p>Ask pupils: How hard do you think it is to find a balance between the needs of human communities and the need to protect the environment? For instance in big modern cities parking is very difficult and so some people felt they had to pave over their gardens. They did this out of need, not because they didn't like the sight of flowers and grass (Resource 4).</p> <p>Brainstorm activity: how could we use our thinking and ingenuity to come up with more creative choices?</p> <p>For the brainstorm activity, consider the following:</p> <ul style="list-style-type: none"> ● How could more people be encouraged to cycle rather than drive or take the bus? ● How does the way that cities are planned and built influence people's willingness to walk or cycle? Compare countries where people do cycle, e.g. the Netherlands and Japan, to Britain. Consider Cardiff city centre, which has cycle lanes that are separated from the main flow of traffic by trees, making it a safer and a more pleasant/green environment through which to travel (Resource 5). 	<p>Resource 3: Quotes from religious texts related to the protection of the environment and background information on the concepts of stewardship and conservation</p> <p>Resource 4: Consequences of paving over gardens</p> <p>Resource 5: Pictures of cycle paths/lanes</p>



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<ul style="list-style-type: none"> ● What could schools do in this respect? Could they develop cycle buses in the same way as some schools organise walking buses? Could parents be encouraged to cycle in with their children in big groups? Could children be taught how to look after bikes, fix punctures, could schools provide bike racks? Could schools hold a no car day? 	
<p>Activity 3 Introduce the idea of sacred groves in Hinduism and how these can be considered green arks because of the species they can protect (Resource 6). Show the class some pictures of these Indian sacred groves, and describe the traditions of protecting them, perhaps through the story of the Bishnoi tribes and their orans. Point out that even though sacred groves in India (and elsewhere) are incredibly important to the environment and to the wildlife that is dependent on them, nowadays they often require intervention in the form of laws to protect them.</p> <p>Ask: How do the Bishnoi act as stewards? (For example, by only taking wind-fall leaves, branches and fruit.) The class could role-play – or make a story board – about someone cutting down a khejadi tree either to make way for a new road or, for example, by someone who was desperate for firewood. What would the consequences of this act be for both the Bishnoi people and the animals that depended on the grove?</p>	<p>Resource 6: Background information on the sacred groves and pictures</p>
<p>Activity 4 Ask pupils to work in groups of four or five and give each group 10 blank cards. Ask pupils to draw on each card the image and name of a plant that they treasure. Initiate pupils' discussions on the plants they will choose by asking them: what sort of plants they might consider as important e.g. plants used for food, plants used for clothes, plants that are beautiful, plants used for medicine etc.</p> <p>Tell them to imagine that there's been some kind of disaster and that they and their family are being ferried in an ark to a new place. They are only allowed to</p>	



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<p>bring five of the ten plants along. Ask the groups to decide which 5 plants they would take with them and to write their reasoning for each choice on the back of each card.. Get the groups to present to the whole class one of their choices, the reason behind their choice.(i.e. why they consider that particular plant important) and how hard or easy it was to choose.</p>	
<p>Plenary Summarise the ideas that have been discussed so far: the importance of stewardship, and how some traditions – e.g. the tradition of sacred groves in Hinduism – can be examples of green arks. Similarly the scientific work of botanic gardens also serves to conserve a precious heritage for humankind. Tell pupils to imagine that they live in an area where the habitat of a plant that is loved by them is under threat. This plant happens to be important in the beliefs of a local religious community. Scientists have said that it might have medicinal properties, but in addition it is a unique and beautiful plant in its own right. However a developer has put in an application to destroy the only habitat where this plant grows in order to build a factory that will create new jobs. Write a letter to your local council either advocating for the protection of the habitat or suggesting a compromise alternative. What reasons will you give to support your point of view?</p> <p>Pupils may be able to:</p> <ol style="list-style-type: none"> 1. Talk about what stewardship means. 2. Give several reasons why the plant under threat (i.e. the one in the activity) is important. 3. Compare their reasons for wanting to conserve the habitat with the developers' argument to use the land to build a factory. 4. Discuss the above choice in terms of morality, i.e. whether there is a right or wrong choice. 5. Come up with a suggestion that might be a creative compromise. 	