**Planet Earth DVD – Seasonal Forests**

[*Based on the BBC Planet Earth DVD*](http://www.amazon.com/gp/product/B000MR9D5E?ie=UTF8&tag=auruscie-20&linkCode=as2&camp=1789&creative=390957&creativeASIN=B000MR9D5E)

**Taiga**

1. What type of trees are found in the *taiga* ecosystem?



1. Describe a few *abiotic*factors found within the taiga that limit its biodiversity.
2. Lynx are solitary animals that sparsely populate the taiga. Why are their numbers so limited?
3. Moose are one of the only animals of the taiga able to digest evergreen needles. What makes them so distasteful to other herbivores?
4. What is the purpose of cones in evergreen trees?
5. Give an example of a physical and behavioral adaptation shown by the wolverine.
6. How might it benefit the capercaille species in the long run to have the males fight over the right to breed with the females?

**Temperate Rainforests**

1. Give two limiting factors present in the temperate forests of the Pacific Northwest that allows the trees to grow so much taller than usual.
2. Why are animals relatively scarce within the temperate rainforest?
3. The pine marten’s food source varies by season. In the spring it relies on eggs. What about other seasons?

**Temperate Evergreen Forest**

1. How are Monkey Puzzles similar to the coniferous trees of North America and Europe?
2. Slender-billed parakeets and crossbills both have similar adaptations that allow them to eat the seeds of cones. Is this convergent or divergent evolution?

**Temperate Mixed and Deciduous Forest**



1. What do the animals of the Valdivian forests of Chile have in common?
2. Describe one advantage and disadvantage of the broad, flat leaves of deciduous forests.
3. Periodical cicadas are slow, clumsy, and defenseless against predators. How are they able to survive and reproduce as a species?
4. Explain how the fighting of the male red deer can result in the next generation having overall better genes.
5. Describe the niche of the vultures and Amur leopards in winter.
6. Why does it take longer for the Amur leopards to raise their young than African leopards?
7. Why do deciduous plants produce brightly-colored, nectar-filled flowers?
8. How does the lower layer of the deciduous forest compare with the canopy?

**Tropical Deciduous Forest**

1. Why would a deciduous tree living in a tropical latitude need to drop its leaves?
2. Explain the mutualistic relationship between langur monkeys and chital deer.
3. What adaptations to Baobab trees have for surviving the dry seasons of Madagascar?
4. Explain the mutualistic relationship between hawk moths, baobab trees, and mouse lemurs.

