

Gymnosperms


AKA Pine Trees

Paragraph #6
And then they had seeds

46 Gymnosperm	<input type="checkbox"/> Identify as Conifers/Pine trees <input type="checkbox"/> Live on land <input type="checkbox"/> Vascular <input type="checkbox"/> Effect on shape: Can grow REALLY tall <input type="checkbox"/> Why? They have AMAZING VASCULARITY <input type="checkbox"/> How do they move water <input type="checkbox"/> Xylem for water <input type="checkbox"/> Phloem for food	<input type="checkbox"/> Seed <input type="checkbox"/> Do they rely on water for reproduction? (No: Can live farther from water) <input type="checkbox"/> In cone <input type="checkbox"/> Connect Cone to Flower


Commonly Known as:

Conifers AKA Pine trees



How are they like Ferns?


1. Land Plants
2. Vascular
 - Xylem and Phloem
 - But now the vascular tissue has evolved to awesome new levels to let conifers become the tallest plants



Where do they live?


On Land – and rocks at it!

- 3rd plants to make it to land
 - By far the best at living on land
 - Can handle arid (dry) areas
 - Awesome vascular tissue to transport water over great distances
 - No longer need water for reproduction because they have SEEDS!



How do Conifers Reproduce?

- SEEDS!
 - The first seeds have evolved
 - Since they are the first they are more simplistic (less derived)
 - Naked seeds
 - In fact: "Gymnosperm" Means Naked Seeds
 - The ovule/seed is produced on a leaf-like structure and is **unprotected**, or naked
 - Use a **cone** to protect their seed instead



Vascular

- What does that mean?
 - They CAN move water
- How does this affect their shape?
 - No longer constrained to have maximum SA for Osmosis
 - Don't have to be long/skinny or short/fat
 - Can be tall because they can move water
- Have **AMAZING** vascular tissue to grow so tall, has wood/cellulose around tubes to stop them from collapsing

