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, AKA ancestral)
    - 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
Pollen

– Structure

1. Air bags – to float
2. Cell
3. Long tube to spread genetics into the flower

– Function:

• Move through air
• Distribute male DNA
• Improved genetic diversity

Cone to Flower

• Protect the seed
• Help distribute it
• Attract pollinators
  • Diversify genetics = healthier
<table>
<thead>
<tr>
<th>Vascular</th>
<th>How does this affect their shape?</th>
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<tbody>
<tr>
<td>• What does that mean?</td>
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<tr>
<td>– They CAN move water</td>
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<tr>
<td>• AMazing Vascular Tissue</td>
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<tr>
<td>– Allows: Them to grow so tall</td>
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<tr>
<td>– How do they deal with the pressure?</td>
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<tr>
<td>• Wood/cellulose around tubes</td>
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<td>• Why: stop them from collapsing</td>
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