QUIZ

In a binary search tree, values in the left child are _____ than their parent, and values in the right child are _____ than their parent.

- Lesser than; greater than.

Correct! A binary search tree allows for efficient search because at each level half of the options are discarded.

- Equal to; lesser than.
- Greater than; lesser than.
- Lesser than; equal to.

Tree nodes which share a parent node are called what?

- Co-workers
- Partners
- Buddies
- Siblings

Correct! When two nodes share the same parent, they are known as siblings. They are also on the same *level* of the tree!

What would make a wide tree?

Many different data types in different nodes.

Many child nodes per parent node.

👏 Correct! We often think of trees “growing” down from a single root node. The more children a node has, the wider the tree will become.

Many parent nodes per child node.

A tree node which is held as a reference by another tree node is called what?

An alpha node

An uncle/aunt node

A child node

👏 Correct! Trees are composed of nodes that reference other nodes. The nodes being referenced are known as children or child nodes.

A sibling node

A tree node without a parent is called what?

Stick

Branch

Free

Root

👏 Correct! Root nodes have no parent, meaning there is no node which references them as a child node.

Tree nodes which have no references to other nodes (children) are known as what?

Leaf nodes

👏 Correct! We know when we've reached the "bottom" of a tree when a node has no references to other nodes, also known as children.

Fringe nodes

Depth nodes

Branch nodes

What would make a deep tree?

Many sibling nodes at each level.

A philosophy class.

Many parent-child connections with few sibling nodes.

👏 Correct! A new level is created each time a node becomes a parent (adds a child where it had none before). A tree with many levels is a deep tree.

Each node has at most two children.

A tree node which holds references to other tree nodes is called what?

An executive node

An owner node

A root node

A parent node

Correct! Trees are composed of nodes which reference other nodes. The nodes which reference other nodes are known as parent nodes.