

Tree roots

This task is about interpreting diagrams.

Part one: Review your knowledge

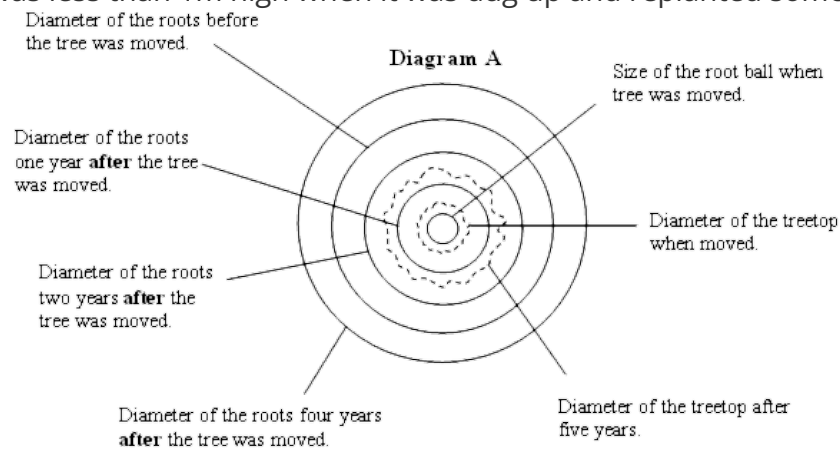
a) Use your knowledge of plants to list two main functions carried out by the roots of trees.

Function 1:

Function 2:

Part two: Interpret a model

Diagram A is a model that compares how the diameter of a tree's root system and branches changed over time. The tree was less than 1m high when it was dug up and replanted somewhere else.



b) i) What does each smooth circle on the model represent?

ii) How many years' growth in total does the model show?

Less than 2 years

2-3 years

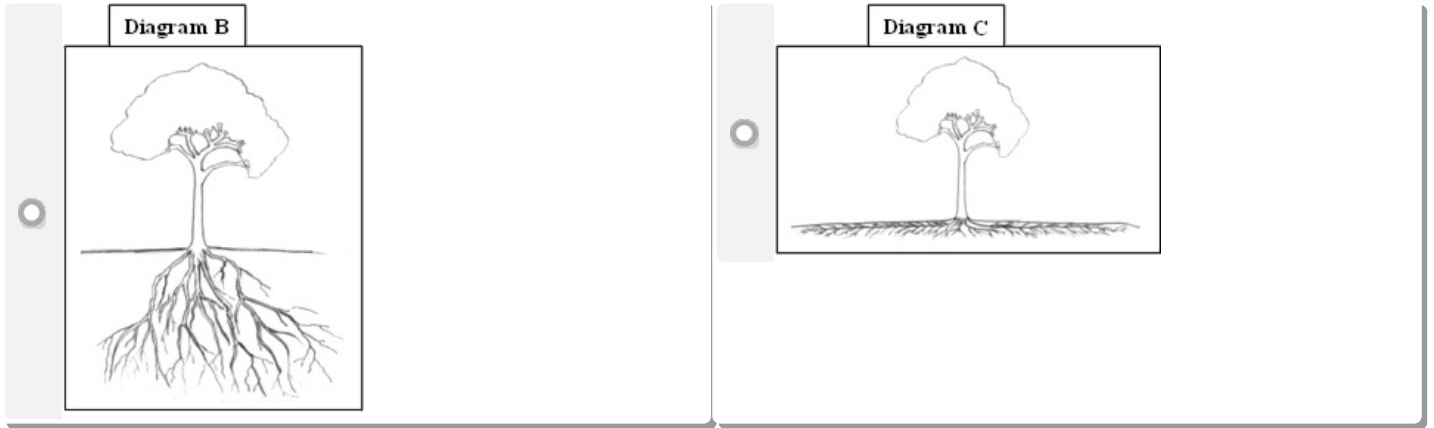
3-4 years

At least 5 years

iii) How long did the roots take to grow back to their original spread?

Diagrams B and C show two types of tree root systems.

c) i) Which of these diagrams would be most like the tree modeled in diagram A?



Give a reason for your choice.

Part three: Apply your knowledge

When trees are moved the effects on their root systems can be dramatic. When even quite small trees are moved it is impossible to dig up all the roots as well. This means trees need very careful attention for some time if they are to survive.

d) Trees are often supported with sturdy stakes when they are first transplanted.
How does this help them survive?

e) Use the information provided to recommend a suitable length of time for keeping the stakes in place.