Think about:

- What will be the source of your leaf litter? Some leaves are tough with a thick cuticle that will not decompose quickly. Better to choose softer leaves such as sycamore, oak or beech.
- Take your samples from the base of the tree where the leaf litter is moist and has already started the decomposition process.
- What type of mesh will you use? About 0.05 mm would be about right, cut out of nylon tights.
- Make sure that you weigh your two leaf litter samples at the start of the investigation to ensure that they are the same biomass.
- Your leaf litter samples are moist and the cling film should ensure that the moisture is kept in whilst still allowing entry of oxygen.

Remember that for decomposition, leaf litter will need water, oxygen and the factor that you are going to change – temperature.

- You may be able to extend the investigation for longer than 3 weeks. Ideally this investigation should carry on for 2 or 3 months.
- At the end of the investigation, calculate the rate of decay using this equation:

\[
\text{Rate of decomposition} = \frac{\text{initial mass} - \text{final mass (g)}}{\text{number of days}}
\]

- You may want to investigate the effect of a) water and b) oxygen on the rate of decay. In the case of a) you could try dry leaf litter and moist leaf litter. In the case of b) you could exclude oxygen from the leaf litter by replacing cling film with a clear polythene that is impermeable to oxygen.

You might choose to use some of these things:

- Two pieces of mesh 14 cm × 14 cm cut from nylon tights (0.05 mm)
- Scissors, forceps and nylon thread
- Two 250 cm³ beakers
- Cling film

Access to:

- Leaf litter
- Soil
- A refrigerator