



## **Quarterly Problem**

- Math Edition -

## **Leaf carpet**

https://pixabay.com/photos/nature-forest-trees-autumn-season-6816877/



During autumn the leaves of trees change color from green to yellow, orange and sometimes even dark red. And next they fall down, announcing winter time. Would you like such a leaf carpet in your bedroom?

Children enjoy the great heaps of leaves that have fallen from the trees. But for some persons all these leaves are also a bit problematic. They want to clean the streets and pathways with their blowers. Some trees carry more leaves than others. Some leaves are bigger than others.

What area can be covered with the leaves of one tree? Is it possible to cover a football field with the leaves of a big beech tree? Can a little tree already have anough leaves to create a carpet for your classroom?

**Determine the area that can be covered with the leaves of a tree in your neighbourhood.** Try to find out what the minimal and maximal area can be covered when looking at different kinds of trees.

## **Brainstorm-Box**

Discuss how to determine the areas of a specific kind of leaf. And how can you determine the number of leaves in a tree?



https://pixabay.com/photos/autumn-leaves-foliage-fall-111315/

## Whose method is the most accurate?

Be sure to present your thoughts and findings in an accurate and understandable way. Also clarify what strategy and assumptions you have used for your estimations.

© Michiel Doorman, Katharina Flößer/International Centre for STEM Education (ICSE), 2019 CC-BY-NC-SA 4.0 Lizenz wird gewährt



