

# PARENT NOTES

## Tree Trigonometree!

### Measuring the Height of a Tree



#### At A Glance:

- ✓ Key Stage 3 (Y7-9)
- ✓ National Curriculum 2014
- ✓ Practises basic trigonometry skills
- ✓ On site activity
- ✓ Practises skills in a stimulating real-life situation

#### About this Activity

Whilst waiting at Goodleaf for their turn to climb, students can complete this fun mathematics challenge, which sees students practising their estimation, measuring and basic trigonometry skills which are a core part of the learning requirement for this subject as defined in the National Curriculum for key stage 3 and, in Scotland, the Curriculum for Excellence for S1-S3.

#### Questions & Answers

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trigonometry skills at Goodleaf Tree Climbing in Appley Park.

together, recording and comparing data, and estimation.

They will engage with several possible methods of finding the height of trees in Appley Park vicinity, working together in pairs or as part of a team.



#### How does this link to my child's learning?

- ▶ Questions have been chosen because they link with core Mathematics skills at key stage 3, suitable for a range of abilities.

#### What will they learn?

- ▶ Students will compound their previous learning and improve their technique and accuracy by practising these core skills in an engaging outdoor environment.

#### How does this enrich study undertaken in school?

- ▶ It is an opportunity for students to practise using mathematical techniques and processes in a fun way within a real-life situation, and it is expected that this will provide a more enriched visit experience, encouraging an awareness of subject and skill relevance. Students can work together and support each others' learning.

#### What do they need to have done in preparation?

- ▶ It is suggested to teachers that relevant skills and techniques should be taught and practised in class prior to the trip so students are aware of the mathematical tools they need to utilise. It would be helpful if students have made their inclinometer and ratio stick before the visit to save time on-site.

*“Mathematics is the most beautiful and most powerful creation of the human spirit”*

- Stefan Banach

### What skills do students need to demonstrate?

- ▶ Basic trigonometry
- ▶ Measuring
- ▶ Estimation
- ▶ Recording data
- ▶ Comparing data
- ▶ Working with others to solve problems

### Learning Outcomes

Students will be able to demonstrate, practise and consolidate their relevant maths skills, by applying their previously learned skills and techniques to measure the tree heights.

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This activity was compiled by Education Destination in conjunction with Goodleaf Tree Climbing. We help students of all ages and abilities to experience excellent curriculum based learning opportunities at many Island venues and attractions.



[edudest.info](http://edudest.info)

Goodleaf Tree Climbing are the UK's recreational tree climbing experts. Whether you're 8 or 80, you can climb a tree in a beautiful seaside park on the Isle of Wight. Sessions are fantastic, fun, eco-friendly and safe. What an achievement!

[www.edudest.uk](http://www.edudest.uk)



[goodleaf.co.uk](http://goodleaf.co.uk)

For further reading about tree climbing, wikipedia offers an excellent article, including onward links to a range of related content. This would serve as an ideal introduction for learners prior to their visit, and is suitable for ages 7 upwards.



[wikipedia.org](http://wikipedia.org)

### What follow-up tasks are there?

Teachers could engage the students in many follow-up tasks, including:

- ▶ Class discussion about the accuracy/technique used in responses
- ▶ Other practice questions that link to their visit or to the tree-climbing environment

### Is there any scope for future learning at Goodleaf Tree Climbing?

Yes. There are many other subjects and tasks developed for later key stages and for subsequent visits. There is much to be learned here!

