La Trobe Wildlife Sanctuary

# Find that Frog (7 – 10)

**In this exciting activity, your students will try and find a frog somewhere in the sanctuary, using triangulation techniques.**

| Learning Intention | Success Criteria |
|---|---|
| Students will be able to locate a pretend frog using graphical triangulation methods. Students will be able to determine if this is a reliable method or not. | Students can locate the frog successfully using triangulation. If they did not locate the frog, students will be able to describe why the method was unreliable. |

| Student Activity |
|---|
| Once in an open area within the sanctuary, a pretend frog (a speaker), will be placed somewhere in the space. Once it starts calling, the students will listen and try and find it. Through the process of figuring out how to find it, they will come to the conclusion that they can use a simple triangulation technique with students standing in three places. Once they have realised this, they will be given graph paper as a representation of the area, with three standard points. The students stand in the three points and point to where they can hear the sound. The students will then draw lines in this same direction to create a triangle on their paper, to show them the place where the frog should be. They then look for the frog in this place to see if it was accurate.<br>They may also later try and find a real frog in one of the wetlands if time allows. |

| Learning Outcomes | |
|---|---|
| **Cognitive** | Students will understand the process of triangulation as a method to find a sound. Students will analyse the accuracy of this process. |
| **Affective** | Students will enjoy trying to figure out how to find the frog accurately. They will enjoy applying this method to a find a real frog in the wetlands. |
| **Observational Skills** | Students will be able to accurately draw a triangulation graph and test this graph in a real life scenario. |

# Find that Frog (7 – 10)

## Curriculum Links

**Year 7-8:**

Collaboratively and individually plan and conduct a range of investigation types, including fieldwork and experiments, ensuring safety and ethical guidelines are followed (VCSIS108)

In fair tests, measure and control variables, and select equipment to collect data with accuracy appropriate to the task (VCSIS109)

Construct and use a range of representations including graphs, keys and models to record and summarise data from students' own investigations and secondary sources, and to represent and analyse patterns and relationships (VCSIS110)

Reflect on the method used to investigate a question or solve a problem, including evaluating the quality of the data collected, and identify improvements to the method (VCSIS112)

**Year 9-10:**

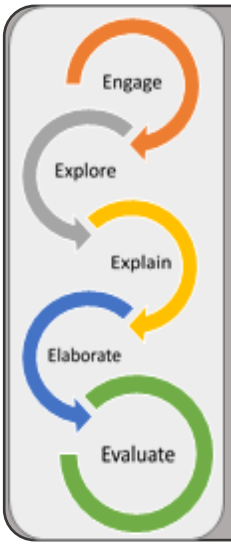
Select and use appropriate equipment and technologies to systematically collect and record accurate and reliable data, and use repeat trials to improve accuracy, precision and reliability (VCSIS136)

Construct and use a range of representations, including graphs, keys, models and formulas, to record and summarise data from students' own investigations and secondary sources, to represent qualitative and quantitative patterns or relationships, and distinguish between discrete and continuous data (VCSIS137)

Analyse patterns and trends in data, including describing relationships between variables, identifying inconsistencies in data and sources of uncertainty, and drawing conclusions that are consistent with evidence (VCSIS138)

## Summary

Throughout this engaging activity, students will learn how to use triangulation to find a sound. They will use standardised methods including graphing paper to draw triangles and find the frog sound using these. They will decide whether this method is accurate, and if it's not, how they could improve it. They can also apply this newly found method to find a real frog in one of the wetlands.




**A New Pedagogy Deep Learning (NPDL)**

The LTWS incorporates the work of Michael Fullan and Maria Langworthy into their activities and support resources.

**Instructional Model** and incorporate a range of activities designed to develop 21st Century Learning Skills.

The **Find that Frog** activity provides an authentic link to a pedagogy for Meaning-Oriented (Deep) learning. The ticks below provide an indication of the skills this activity is designed to develop.

## Support Materials

The LTWS have (and are) developing a range of support materials that provide additional resources for teachers to explore this NPDL framework.

Visit our Webpage – www.latrobe.edu.au\wildlife

Keep in touch via the sanctuaries Blog, Facebook and Youtube pages to discover more about the sanctuary and the opportunities your students can explore.

http://bit.ly/1TdbMnN
http://on.fb.me/1WeQwfD
http://bit.ly/1V4yMTL