

ELECTRONIC TREASURE HUNTING

LESSON 5

LEARNING PURPOSE:

Navigate the school's physical environment

- Use ICT to find information
- Use field techniques (including mapping skills) outside the classroom
- Begin to understand (and apply) scale and basic grid references

AUSTRALIAN CURRICULUM LINKS

General Capability Learning Continuum - ICT

Locate, generate and access data and information

Locate, retrieve or generate information using search facilities and organise information in meaningful ways

Maths

Solve problems involving the comparison of lengths and areas using appropriate units (ACMMG137)

HASS - Geography

Organise and represent data in a range of formats including tables, graphs and large and small-scale maps, using discipline-appropriate conventions (ACHASSI096)

EQUIPMENT AND MATERIALS

- Access to google maps for satellite images of the school grounds or maps of the school grounds.
- Six 'geocaches' (small containers in which the children have stored treasure items such as small world toys), one per group of six children.
- One or two hand held GPS units (an alternative might be mobile phones with GPS facility or a satellite navigation system).

KEY LEARNING INTENTION

We are using our school grounds to learn about navigation skills.

Identify - Use ICT to find information

- · Where are we now?
- · Where do we want to be?

Plan - Use field techniques (mapping) skills

· How can we get there?

Reflect - Apply scale and understanding of grid references based on exploration to adjust and refine plan

- How can we better use this space to make the navigation more interesting/challenging?
- · What do I need to change?

FURTHER RESOURCES AND USEFUL WEBSITES

National Geocaching website:

www.geocaching.com

Google Maps:

https://www.google.com.au/maps/

Geocaching App (itunes):

 https://itunes.apple.com/au/app/geocaching/ id329541503?mt=8

Geocaching for teachers:

https://www.geocaching.com/education/

Kids explain geocaching:

- https://www.youtube.com/watch?v=CwjlnXj8R-0
- · www.natureplay.org.au









INTRODUCTION

Electronic Treasure Hunting promotes learning and wellbeing through engagement with our immediate outdoor environment.

An Electronic Treasure Hunt involving geocaching provides children with a chance to enhance their application of classroom skills related to navigation. It creates an opportunity for children to feel good by getting outside, as through this experience, they are playing together, exploring nature and moving around to improve fitness.

PREPARATION: ACTIVITY 1: WHOLE CLASS WORK

Explore

- Using google earth, get the children to find their school and print off an aerial view satellite image.
- Using this image, walk around the school grounds with the children getting them to identify key landmarks. Mark any other important landmarks/ features on their image that may not already be there.

ACTIVITY 2: SMALL GROUP WORK

Find

- Get groups of up to six students to create and hide their geocaches around the school site and mark on their satellite image/map where they have left them.
- Exchange maps across groups. Using the image/map children try and find each other's hidden geocaches.

ACTIVITY 3: SMALL GROUP WORK

Measure

 Rather than a printed satellite image, get children to find the longitude and latitude references to (right click on their google map). These can then be programed in to find the geocaches.

ACTIVITY 4: SMALL GROUP WORK

Design and Develop

 Design, or get the children to develop and exchange a treasure trail: In each geocache put a clue, (or a longitude and latitude reference) that takes the treasure hunter to the next geocache. This could be in the form of picture clues (photos or illustrations), measurement and direction clues, riddles or poems.

GOING BEYOND:

- Develop trails for family fundraising events and extended school activities, including open evenings.
- · Having practised in the school grounds, take these activities to the local park.
- · Have students create 'easy' versions of this treasure hunt for younger children.







