Science Fieldwork
Activities

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We are Edwina Farrugia and Vivienne Zammit and we are currently full-time students reading for an undergraduate honours degree in Education, specialising in Biology, at the University of Malta. As part of our course, we decided to carry out our dissertation project on unexplored places in Gozo that could be used as alternative sites for fieldwork.

We decided to carry out this research project because as found in the interviews we conducted, Biology and Integrated Science teachers mainly use the same sites for fieldwork and do not exploit other potentially suitable places. The creation of the website was aimed to provide a good description of ten alternative sites that we analysed in terms of safety, accessibility and diversity of species.

The website (http://sciencefieldworkgozo.weebly.com/) besides giving an overview of the ten alternative sites (Wied il-Mielah, Wied il-Ghasri, Il-Fanal tal-Ġordan, Ix-Xatt l-Aħmar, L-Gholja ta’ Ghammar, L-Gholja tan-Nuffara, Il-Wied taċ-Ċianti, Tal-Maqjel, Il-Fekruna Area and Il-Kantra ta’ Xlendi), gives specific information on how to reach each site is given along with any precautions one need to take.

The Fieldwork activity pack was made available online so that teachers could easily have access to it. In fact, this activity pack is included in the last section in the website (http://sciencefieldworkgozo.weebly.com/fieldwork-pack.html). General activities were created to be used in almost every alternative site proposed. Under each site review, we also included a small section 'Suggested Field Techniques' which gives a list of the activities found in this pack that can be used specifically in that alternative site. This activity pack can be easily downloaded from our website (http://sciencefieldworkgozo.weebly.com/fieldwork-pack.html) and teachers could opt to print whichever activities they like as we included each activity on a separate paper.

We hope you make good use of this fieldwork activities booklet and of our website!

N.b All photos in this activity pack were taken by us
Prior to visit..

Checklist for teacher for possible equipment

1. Mobile phone
2. First aid kit
3. Camera
4. Quadrats
5. Graduated quadrats
6. String
7. Poles for transect
8. Magnifying glasses
9. Books for Flora identification
Prior to visit..

Checklist for students for possible equipment

1. Food and snacks
2. An ample supply of water
3. Warm clothing
4. Headgear
5. Raincoat
6. Any medications
7. Magnifying glass
8. Camera
9. Coloured pencils
10. Fieldwork activity sheet
Fieldwork Activities

Activity 1: Weather

How is the weather today? Circle the correct photo of the current weather.

- Windy
- Sunny
- Cloudy
- Rainy

Measure the Air Temperature and fill in the following sentence

- The temperature today is _____ °C
Activity 2: Silent Exercise

Choose an area and carry out a silent exercise.

a. Don’t move or make any noise, listen carefully for one to two minutes and write down what you hear in the bubbles below:

b. Are the noises you heard caused by humans or are they natural? Put the noises you heard under the correct heading.
Activity 3: Bird watching

Look high up in the sky and observe any birds.

a. List any birds you see in the box below

b. Find pictures of the observed birds and stick them in the boxes below
Activity 4: Human interference

Besides noise pollution which is caused by humans, can you list or take photos of any evidence of other human interference in the boxes below.
Activity 5: Investigating the habitat under a Tree

In groups of three’s find a tree you like and answer the following questions

a. Label the following photo of a tree

![Tree Photo]

b. Look under the tree and list what did you find under the tree in the following bubbles

___  ___  ___  ___  ___  ___  ___  ___
c. Observe the colour and texture of the soil and discuss


d. Dig into the soil and take notice of any living animals. Sketch any 3 animals you find in the circles below


e. Observe different trees. Do you think the trees are all the same age? How can you tell the age of the trees?


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Activity 6: Leaves

a. Choose 3 different types of plants. Observe their leaves and make a leaf rubbing. Attach the leaf rubbings in the circles below.

b. Why are the leaves green?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
c. Choose two different types of leaves and draw a sketch of each in the boxes below

| Leaf 1 | Leaf 2 |

d. Describe the structure of each leaves in the circle below

Leaves

Leaf 1

Leaf 2
Activity 7: Flowers

a. Choose two flowers of your choice and do a sketch of each in the boxes below

b. Search for a scented flower.
   i. Take a photo of the flower and attach it in the box below
   ii. Why do you think some flowers are scented?

________________________________________________________
________________________________________________________
________________________________________________________
Activity 8: Distinguishing between flowers

a. In groups of three’s look at the following pictures and use the key in the following page to ask some questions and follow the answers the key gives you to decide which flowers are they.

A  B  C

D  E
Question 1:
If the plant has yellow flowers go to question 2
If the plant doesn't have yellow flowers go to question 3

Question 2:
If the flower has five petals then it is the Cape Sorrel
If the flower has more than five petals then it is the Crown Daisy

Question 3:
If the flower of the plant is blue, then it is the Blue Pimpernel
If the flower of the plant is pinkish-red, go to question 4

Question 4:
If the leaves of the plant are broad, then it is the Sulla
If the leaves of the plant are narrow, then it is the Crimson Pea.

<table>
<thead>
<tr>
<th>Plant</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
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</tbody>
</table>
**Activity 9: Valleys**

a. Is there any water in the valley or it dried out?

   ___________________________________________________________________

   ___________________________________________________________________

b. Can you observe any frogs in the water? If yes try to take a photo of it and stick it in the box below

   ___________________________________________________________________

   ___________________________________________________________________

c. Why is a valley an ideal place for a frog to live?

   ___________________________________________________________________

   ___________________________________________________________________
Activity 10: Food Chains

Create **TWO food** chains based on the plants and animals you encounter on site and either write them down or draw them in the circles below.

**Food chain 1**

**Food chain 2**