



The Birmingham Botanical Gardens



Investigating Map Skills

Introduction

The purpose of this booklet is to describe activities at The Botanical Gardens that can help the development of map skills.

Each activity is briefly described and then given the National Curriculum POS statement/s that it helps to develop at Key Stages 1 and 2. These are given as the numbers and letters used in the National Curriculum document.

The majority of activities can be differentiated to become more or less demanding to suit the particular needs of a group or individual pupils. In addition, many of the activities can form the basis of tasks, which easily incorporate other subject areas such as PE or Maths.

To get the most out of a visit pre-planning is essential and the Centre staff are always available to help you.

Many thanks go to Birmingham Outdoor Education Service for all the help with planning the orienteering activities, and John Mansfield for the development of a range of maps of varying scale and complexity.

Using Photographs

Pupils are given a set of photographs of obvious locations in the Gardens. Having found the locations, pupils have to mark them onto a map. This activity can be extended using a map that has letter/number co-ordinates or number/number co-ordinates. An aerial photograph of the Gardens is also available for locating features in conjunction with OS maps of various scales. The use of co-ordinates can be introduced.

KS1 2a, c

KS2 2a, c, g

Glasshouse activities

Many map skill activities can be incorporated into cross-curricular work around the glasshouses. For example, drawing plans of the glasshouses, locating particular features, marking positions of plants or features on a map of the glasshouses or introducing the concept of scale.

Where is the Botanical Gardens?

The Gardens are clearly shown on the 1:50 000 OS map of Birmingham. Pupils can be asked to locate The Gardens by use of co-ordinates along with other landmarks nearby. They can also plot the route which they would travel from school.

KS2 2a, c

Can I travel around the world in 80 minutes?

The task is to plan a route around The Gardens, which takes in plants from around the world. Each plant's country of origin can be found on its name label. A route around the world can now be drawn onto a map with the help of an atlas.

KS2 2a, c, d

Fieldwork

Pupils can be asked to use a map to locate known points in the Gardens. They can then carry out a range of environmental measures such as soil pH, air temperature, wind speed and soil moisture. KS2 1b, c 2a, b, c 7c

Where did we go?

Quite simply, pupils have to follow directions and mark their route onto a plan of The Gardens as they move from one place to another.

KS1 2a, c

KS2 2a, c, g

Star activities

These are activities based on large scale 2 maps which only include part of The Gardens. In each case it is an area in which the pupils' movements are easily visible and therefore can be controlled if necessary.

Onto these maps are marked control points which pupils are asked to visit in a structured way to ensure that they are applying their map skills correctly. In addition, it helps to build up confidence through success. Compass work can also be introduced.

There are numerous versions of this activity to make it easy enough for early years or more demanding for pupils who are ready to be introduced to complex, full colour orienteering maps.

KS1 2a, c

KS2 2a, c, g

Permanent orienteering course

Full colour orienteering maps are available along with 40 control posts located in the Gardens. These can be used for a wide range of orienteering activities of varying difficulty.

KS1 2a, c

KS2 2a, c, g

Can I draw a map of a simple route?

A range of routes can be taken from any defined starting point to a finishing point. These can be described orally or drawn based on careful observation.

KS1 2a, e

KS2 2a, e



1



2



3



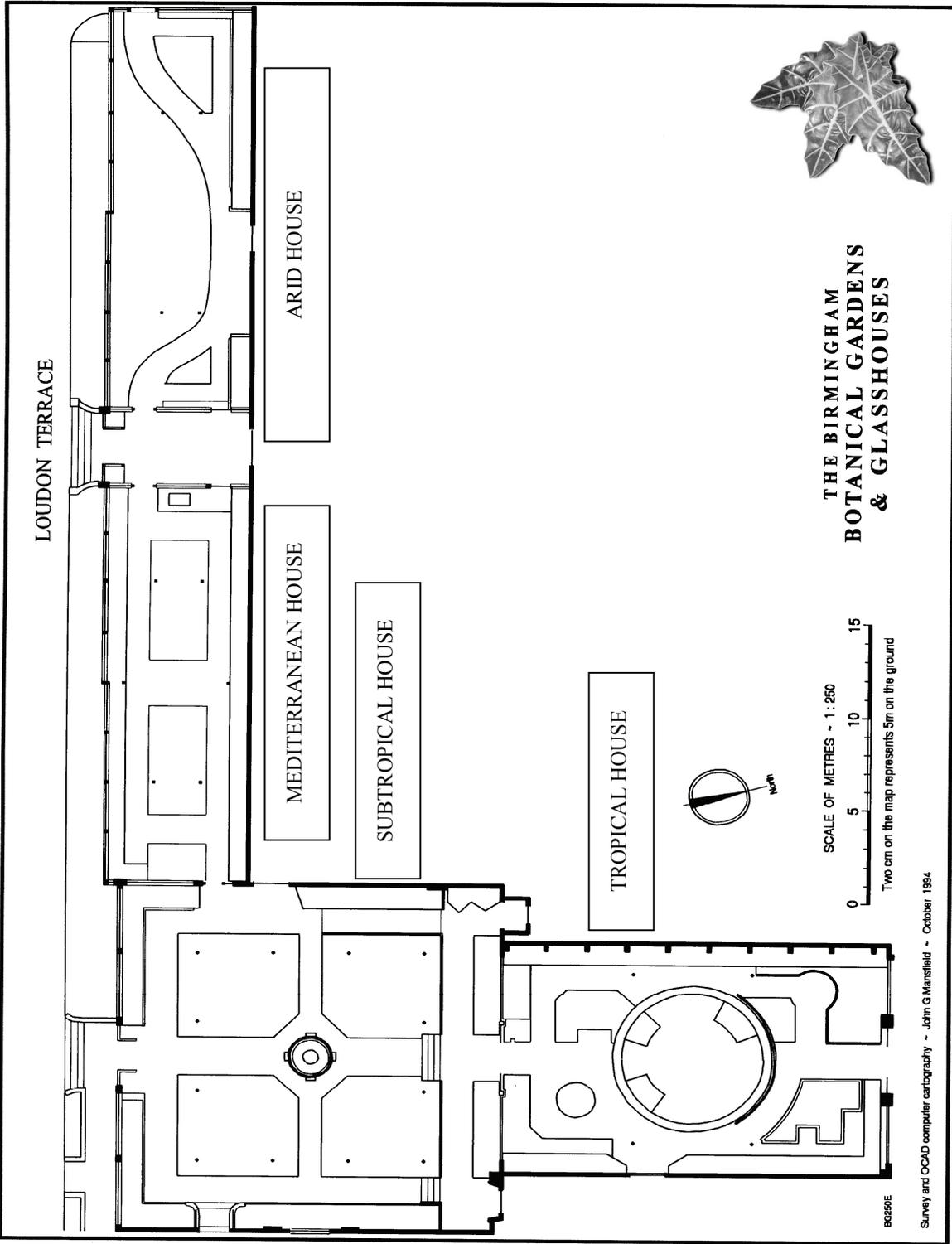
4



5



6



LOUDON TERRACE

ARID HOUSE

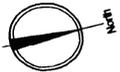
MEDITERRANEAN HOUSE

SUBTROPICAL HOUSE

TROPICAL HOUSE

**THE BIRMINGHAM
BOTANICAL GARDENS
& GLASSHOUSES**

SCALE OF METRES - 1:250
Two cm on the map represents 5m on the ground



B0250E

Survey and OCAD computer cartography - John G Mansfield - October 1994

WALKS AROUND THE GARDENS

Where do these directions take you?

ROUTE A

1. Stand outside the Subtropical House looking at the Bandstand. Turn right and walk along terrace to the end of the glasshouse. What do you come to?
2. There is a choice of routes at the aviary end of the terrace. Turn right and walk down the slope as far as the entrance to the Alpine Garden. What do you go past on your right?
3. Now its your turn. Describe your route walking around the Alpine Garden until you return to the place you started from.

ROUTE B

1. Stand by the terrace aviary with the bird cage to your right. Turn left and walk down the slope. What do you come to?
2. There are a number of paths leading off from the fountain. Take the one which has the bandstand on the left hand side of it. Follow the path up a slope until you reach a building. What is it used for?
3. Now it is your turn. Describe a route which will take you back to the Bandstand. It cannot be the same route you have just taken!

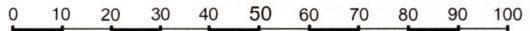
ROUTE C

1. Stand in front of the Pavilion Restaurant looking at the Bandstand. Follow the path on the left side of the lawn until you reach a small fountain. What kind of garden is this?
2. Continue walking straight ahead until there is a pathway on the right. Take this turning and follow the path around until you reach a building. What is making the noise here?
3. Now it is your turn. Describe a route which takes you back to the small fountain which you have just come from. The route cannot be the same as the one you have just used.



O.S. Grid
North

SCALE OF METRES



THE BIRMINGHAM BOTANICAL GARDENS & GLASSHOUSES

