SECONDARY 1 EXPRESS
LESSON 1

TOPIC: MAP READING
MAP SKILLS

Name: _________________________________ (      )     Class: ___________    Date: ______________

Today's Map Reading lesson is on applying your knowledge of bearings and compass directions.

Students are to work in groups of four to find the bearing and compass direction of:

Example: Rubber tree from Coconut tree

Task 1. Student #1: Banana tree from Rubber tree
Task 2. Student #2: Mangrove tree from Banana Tree
Task 3. Student #3: Bamboo from Boat
Task 4. Student #4: Boat from Bamboo

Example: Finding Bearing and Compass Direction of

Rubber tree from Coconut tree

Instructions:

○ Teleport your avatar to coconut tree.

Find coordinates

Click on “World” and select ‘Show’ followed by ‘Coordinates’. You will be able to see this:

This is how you read the coordinates of the coconut tree:

| X: 168 | Y: 99 |

Source: Dr Kenneth Lim, Project OER 05/09 LYT, funded by the Education Research Funding Programme, National Institute of Education (NIE), Nanyang Technological University, Singapore; and Projects NRF2011-EDU001-EL004, NRF2013-EDU001-IHL02 and NRF2014-EDU001-IHL05, funded by eduLab, National Research Foundation. This resource may be reproduced for educational and non-commercial purposes only. If you wish to adapt or use this resource, please contact Dr Kenneth Lim: kenneth.lim@nie.edu.sg.
Coordinates of coconut tree: 168, 99.

- Record the coordinates in the table below.
- Plot the coconut tree on the grid in the INSERT.
- Turn your avatar so that you can see your next destination, rubber tree.
- Teleport there and note the direction.
- Record the direction in the table below.
- Record the coordinates of rubber tree in the table below.
- Plot the rubber tree on the grid in the INSERT.
- Find Bearing

**Step 1:** Draw a straight line joining coconut tree and rubber tree.

**Step 2:** Draw the north arrow

**Step 3:** Measure the angle from the north to the straight line (clockwise)

**Step 4:** Bearing to be given in 3-digit figure.

<table>
<thead>
<tr>
<th>Coordinates of Coconut tree</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinates of Rubber tree</td>
<td></td>
</tr>
<tr>
<td>Compass direction of Rubber tree from Coconut tree</td>
<td></td>
</tr>
<tr>
<td>Bearing of Rubber tree from Coconut tree</td>
<td></td>
</tr>
</tbody>
</table>
Task 1. Student #1: Banana tree from Rubber tree

Instructions:
- Teleport your avatar to rubber tree.

Find coordinates

Click on “World” and select ‘Show’ followed by ‘Coordinates’. You will be able to see this:

- Record the coordinates in the table below.
- Plot the rubber tree on the grid in the INSERT.
- Turn your avatar so that you can see your next destination, banana tree.
- Teleport there and note the direction.
- Record the direction in the table below.
- Record the coordinates of banana tree in the table below.
- Plot the banana tree on the grid in the INSERT.

Find Bearing

Step 1: Draw a straight line joining banana tree and rubber tree.

Step 2: Draw the north arrow

Step 3: Measure the angle from the north to the straight line (clockwise)

Step 4: Bearing to be given in 3-digit figure.

<table>
<thead>
<tr>
<th>Coordinates of rubber tree</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinates of banana tree</td>
<td></td>
</tr>
<tr>
<td>Compass direction of Banana tree from Rubber tree</td>
<td></td>
</tr>
<tr>
<td>Bearing of Banana tree from Rubber tree</td>
<td></td>
</tr>
</tbody>
</table>
Task 2. Student #2: Mangrove tree from Banana Tree

Instructions:

- Teleport your avatar to Banana tree.

Find coordinates

Click on "World" and select ‘Show’ followed by ‘Coordinates’. You will be able to see this:

- Record the coordinates in the table below.
- Plot the banana tree on the grid in the INSERT.
- Turn your avatar so that you can see your next destination, mangrove tree.
- Teleport there and note the direction.
- Record the direction in the table below.
- Record the coordinates of mangrove tree in the table below.
- Plot the mangrove tree on the grid in the INSERT.
- Find Bearing

Step 1: Draw a straight line joining mangrove tree and banana tree.

Step 2: Draw the north arrow

Step 3: Measure the angle from the north to the straight line (clockwise)

Step 4: Bearing to be given in 3-digit figure.

<table>
<thead>
<tr>
<th>Coordinates of banana tree</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinates of mangrove tree</td>
<td></td>
</tr>
<tr>
<td>Compass direction of mangrove tree from Banana tree</td>
<td></td>
</tr>
<tr>
<td>Bearing of mangrove tree from Banana tree</td>
<td></td>
</tr>
</tbody>
</table>
Task 3. Student #3: Bamboo from Boat

Instructions:

- Teleport your avatar to Boat.

Find coordinates

Click on “World” and select ‘Show’ followed by ‘Coordinates’. You will be able to see this:

- Record the coordinates in the table below.
- Plot the boat on the grid in the INSERT.
- Turn your avatar so that you can see your next destination, bamboo.
- Teleport there and note the direction.
- Record the direction in the table below.
- Record the coordinates of bamboo in the table below.
- Plot the bamboo on the grid in the INSERT.
- Find Bearing

Step 1: Draw a straight line joining bamboo and boat.

Step 2: Draw the north arrow

Step 3: Measure the angle from the north to the straight line (clockwise)

Step 4: Bearing to be given in 3-digit figure.

<table>
<thead>
<tr>
<th>Coordinates of boat</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinates of bamboo</td>
<td></td>
</tr>
<tr>
<td>Compass direction of bamboo from boat</td>
<td></td>
</tr>
<tr>
<td>Bearing of bamboo from boat</td>
<td></td>
</tr>
</tbody>
</table>
Task 4. Student #4: Boat from Bamboo

Instructions:

- Teleport your avatar to Bamboo.

Find coordinates

Click on "World" and select ‘Show’ followed by ‘Coordinates’. You will be able to see this:

- Record the coordinates in the table below.
- Plot the bamboo on the grid in the INSERT.
- Turn your avatar so that you can see your next destination, boat.
- Teleport there and note the direction.
- Record the direction in the table below.
- Record the coordinates of boat in the table below.
- Plot the boat on the grid in the INSERT.
- Find Bearing

Step 1: Draw a straight line joining bamboo and boat.

Step 2: Draw the north arrow

Step 3: Measure the angle from the north to the straight line (clockwise)

Step 4: Bearing to be given in 3-digit figure.

| Coordinates of bamboo |  
|-----------------------|---|
| Coordinates of boat   |  
| Compass direction of boat from bamboo |  
| Bearing of boat from bamboo |  

Source: Dr Kenneth Lim, Project OER 05/09 LYT, funded by the Education Research Funding Programme, National Institute of Education (NIE), Nanyang Technological University, Singapore; and Projects NRF2011-EDU001-EL004, NRF2013-EDU001-IHL02 and NRF2014-EDU001-IHL05, funded by eduLab, National Research Foundation. This resource may be reproduced for educational and non-commercial purposes only. If you wish to adapt or use this resource, please contact Dr Kenneth Lim: kenneth.lim@nie.edu.sg.
**Suggestions**

What else should also be included in the map?

__________________________________________________________________________________

__________________________________________________________________________________

__________________________________________________________________________________

Reflection

Has the use of Second Life helped you to apply and understand your knowledge on bearings and compass directions better? Explain your answer.

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