

Practitioner Moderation Template Learner Evidence
East Renfrewshire Council: Education Department
Practitioner Moderation Template



School Code	
Practitioner Code	
Curriculum Area(s)	Social Studies / Numeracy & Mathematics
Level	Second
Stage(s)	P5
Specific subject (if applicable)	Mapping Skills

Experiences and Outcomes:

To extend my mental map and sense of place, I can interpret information from different types of maps and am beginning to locate key features within Scotland, UK, Europe and the wider world.

(SOC 2-14a)

Angle, symmetry and transformation

I can use my knowledge of the coordinate system to plot and describe the location of a point on a grid.

(MTH 2-18a)

Angle, symmetry and transformation

I have developed an awareness of where grid reference systems are used in everyday contexts and can use them to locate and describe position.

(MTH 1-18a)

Learning Intentions:

Lessons 1

To interpret information from different types of maps and plans.

To use grid references to plot and describe the location of a point or position on a grid.

Lessons 2 and 3

To interpret information from different types of maps and plans.

To use coordinates to plot and describe the location of a point or position on a grid.

Lesson 4

To interpret information from different types of maps and plans.

To use grid references to plot and describe the location of a point or position on a grid.

Success Criteria:

Lesson 1 (Grid References revision of first level Maths outcome)

Success criteria negotiated with pupils.

Pupil attention directed towards example on board and I asked pupils what was recorded along each axis. I drew a circle in a grid square and asked pupils to identify its grid reference, asking what would you write down first, letter or number? I drew two or three more symbols on grid, asking volunteers to come out and write down the grid references. I then wrote down some grid references on the board, asking volunteers to plot them on the grid. I asked pupils to imagine teaching this to someone who did not know anything about grid references, asking questions such as: How would you tell them to write grid references? Where would you tell them to draw their symbols? How would people know what the symbols meant? We recapped learning and I asked pupils to come up with suitable success criteria for their mapping activity.

Success Criteria

- I know grid references can be made up of letters and numbers.
- I know that features are located inside the grid reference square.
- I can use grid references to locate different areas in my school plan.
- I know that maps and plans have keys to explain what different symbols mean.

Lesson 2 (Coordinates)

Success criteria negotiated with pupils.

Pupil attention directed towards board examples. Pupils first of all asked what they thought was different about this grid compared to Lesson 1 grid (pupils noticed that there were no letters). I directed their attention to a point plotted on intersection of two lines and asked pupils how this was different from grid references. I wrote examples of pairs of coordinates on the board, asking pupils to come out to board to plot them. I then referred back to how to record grid references and asked pupils what they noticed about the way coordinates were recorded. I plotted some points and pupils recorded pairs of coordinates. They were asked if they knew the name of each axis (a few pupils were able to correctly identify x and y axes). We recapped learning and I asked pupils to come up with suitable success criteria for their mapping activity.

Success Criteria

- I know that coordinates should be plotted where the x-axis gridline and the y-axis grid line meet.
- I can use coordinates to locate and plot points on my school plan.
- I can record coordinates using the correct notation.
- I can explain the difference between grid references and coordinates, using appropriate vocabulary (horizontal, vertical, x-axis, y-axis).

Lesson 3 (Coordinates)

Success criteria negotiated.

I explained the activity to the pupils first of all. To elicit suitable success criteria, I asked the following questions: How will we know we have done a good job? What do we have to remember to do to plot coordinates accurately? How should we record coordinates? How will others know what the symbols on our map mean? What could we do to test whether others understand our maps?

Success Criteria

- I have accurately plotted my symbols on the coordinate points in my map.
- I have recorded coordinates correctly.
- I have included a key to explain what the symbols mean.
- I have created questions about my map for my partner to complete.

Lesson 4 (OS Maps and 4 Figure Grid References)

Success criteria negotiated.

Pupil attention directed towards grid on board with double digit references running along each axis. I asked questions such as: What is different about these grid references? How are they different from grid references from our school plan lesson and coordinates from our Treasure Island Map lesson?

I plotted a point on the grid, inviting pupils to come to board to record the grid reference. What do you think the grid reference would be for this symbol? Where is the symbol positioned on the map? How is this different from coordinates? I gave more 4 figure grid references and invited pupils to come up to plot a symbol in this square. We looked at a small section of an OS map and I asked pupils what information they could find on OS map and asked pupils who they thought might use these maps. We recapped on what we had learned about OS maps to record success criteria below.

Success Criteria

- I can explain what an Ordnance Survey map is for.
- I know that an OS map has a key to explain what the different symbols mean.
- I can use 4 figure grid references to locate places on the OS map.
- I can record 4 figure grid references using the correct notation.
- I know the difference between 4 figure grid references and coordinates.

Briefly outline the context and range of quality learning experiences that have been provided making reference to the chosen design principles.

Personalisation & Choice

- Pupils creating their own treasure island map with questions.
- Pupils creating their own questions throughout the activities.

Relevance

- Pupils interpreting plans of their own school environment.
- Pupils interpreting OS map of their local area.

Challenge and Enjoyment

- Challenge to plot coordinates on school plan grid.
- Pupils creating their own treasure island map with questions.
- Creating own questions for partners during all 4 activities.
- Interpreting challenging OS map.

Breadth

- Pupils interpreting maps and locating features on different types of maps/plans.
- Pupils using 3 different systems (basic grid references with letters and numbers; coordinates; 4 figure grid reference system).

Progression

- Building on previous learning from First Level Numeracy and Mathematics E&O (both noted below) and introducing Second Level E&O.

Angle, symmetry and transformation

I have developed an awareness of where grid reference systems are used in everyday contexts and can use them to locate and describe position.

MTH 1-18a

Angle, symmetry and transformation

I can use my knowledge of the coordinate system to plot and describe the location of a point on a grid.

(MTH 2-18a)

- Progressing from using grid references/coordinates to interpret simple plans of the school and the pupil's own map to locating features on more complex OS maps.
- Progressing from using simple colour coded keys to represent symbols on maps/plans to interpreting more complex keys of OS maps.

Record the range of assessment evidence that was gathered to meet the success criteria (Say, Write, Make, and Do) considering breadth, challenge and application.

Write

Lesson 1: Locating areas of school and recording grid references.

Lesson 2: Locating, plotting and recording coordinates.
Creating questions for partner to answer

Lesson 3: Treasure Island Map – locate, plotting and recording coordinate points.
Create questions for partners.

Say

Lessons 1, 2, 3 and 4: discussion with partners/group members – creating own questions and working together to locate different features and to plot/record coordinates/grid references.

Do

Lesson 4: Interpreting OS map of local area

Did the learner successfully attain the outcomes? **YES**

Briefly outline the oral/written feedback given to the pupil on progress and next steps, referring to the learning intention and success criteria.

Lesson 1

Pupil found this straightforward as we were using previous learning from first level maths.

Lesson 2

We played games during the initial teaching phase of Lesson 2 to practise plotting and identifying coordinates on a grid. We practised examples as a class on interactive whiteboard, using the school plan grid. Pupil was able to correctly identify coordinates for board examples. However, it was initially challenging for pupil to plot points on the grid. When asked to complete an example pupil on first attempt plotted points inside the grid square. Pupil was asked to explain again the difference between grid references and coordinates by referring back to the success criteria. Pupil was then able to successfully complete the written task (see evidence). Pupil was able to explain how coordinates and grid references are different (see pupil self assessment).

Lesson 3

Pupil successfully created her own treasure island map and was able to create questions for her partner. She now understands how to plot, locate and record coordinates. She also successfully completed her key, building on skills learned in previous mapping lessons. Pupil sometimes needs prompting to use correct vocabulary, i.e. x-axis, y-axis, horizontal and vertical.

Lesson 4

Pupils were reminded of previous learning on coordinates and grid references.

We looked at a basic grid on interactive whiteboard 4 figure grid references and 4 figure grid references (see attached teaching resource). Pupil was able to identify that these were different from the coordinates practised in previous lesson. Pupil was able to identify that the feature had been plotted inside the square and not on the intersection between the lines. When asked why pupil was able to ascertain that there were 2 numbers along the horizontal axis and 2 along the vertical axis. When reminded, pupil used terminology horizontal and vertical. We practised examples around the class with pupils coming up to the board to locate and plot features. Pupils then examined OS map of local area. This exercise was challenging and pupil sometimes struggled to identify grid reference correctly.

Next Steps**Social Studies (Mapping Skills):**

Pupil will be interpreting a greater variety of maps, atlases in the wider context of Scotland and the world and will continue to use grid references/coordinates progressing on to lines of latitude and longitude. We will continue to reinforce correct mathematical vocabulary when using grid references. We will also look at direction, scale and measuring straight distances.

Numeracy & Mathematics

Immediate next steps for cross curricular links with Numeracy & Mathematics will be to look at the need for compass directions within the context of mapping.

Pupil Voice:

What have you learned? How did you learn? What skills have you developed?

I have learned that:

- for grid references and coordinates you go along first and up last;
- for coordinates the thing on the map goes on the point where the two lines cross over;
- for grid references the thing goes inside the square;
- in ordnance survey maps you have 4 numbers for grid references;
- the key helps you know what the pictures are.

I learned this by:

- playing games on the whiteboard;
- drawing coordinates on the plan of my school;
- making my own map of a treasure island;
- finding things on an ordnance survey map.

Skills:

I can use a key to understand symbols on maps and plans.


I know how to plot and write grid references and coordinates.

I can use grid references and coordinates to find places on a map or plan.

Key

- Street ✓
- Nursery ✓
- Our Class (5-15) ✓
- P5 classes and 4.19 and 4.20 ✓
- P7 classes ✓
- P2 classes ✓
- Office ✓
- Changing rooms ✓
- ICT 1 and 2 ✓
- Library ✓
- balcony ✓

We walked around the school and took notes on a map where every room in the school is.

 says,
"Good Presentation"

4.12.15

Grid References

Use your plan of our school to answer the questions below.
The nursery can be found in grid reference A3.

1. What can be found in D1? 4.20 and 4.19 ✓
2. What can be found in B4? The office ✓
3. What can be found in E5? ICT 1 and 2 ✓

Write down the grid references for the following areas.

4. Room 5.15 D3 ✓
5. The office B4 ✓
6. The Street D3, D4, C3, C4 ✓

Now make up 2 questions of your own to test a partner. Remember to write down your answers underneath each question.

My question: Where is the Library? ✓

Answer: E4 ✓

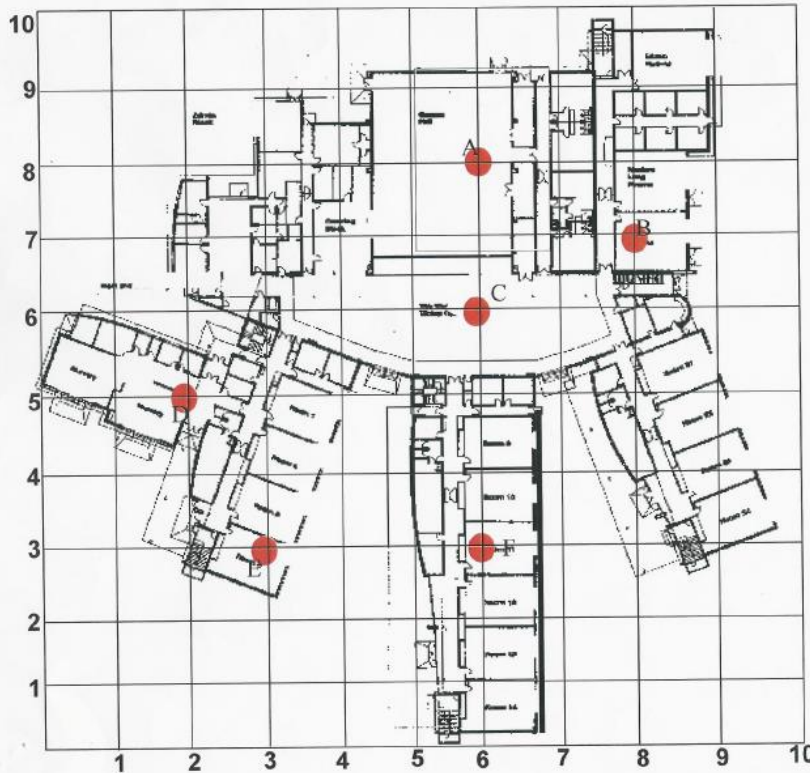
My question: What is the room in A3? ✓

Answer: The Nursery ✓

Self Assessment

I know in Grid references there is Letters and numbers and you go along to the letter and go up to the numbers.

Lesson 2: Coordinates



Task 1

In your jotter note down the coordinates and the name of each area of our school.

e.g. A (6,8) Gym Hall

Task 2

Mark 5 different points on your own grid. Write down the coordinates and names of these areas. Cover your answers and ask your partner these questions.

Write 5 new sets of coordinates. Can your partner tell you what these areas are?

7.12.15

Mapping Skills Co-ordinates



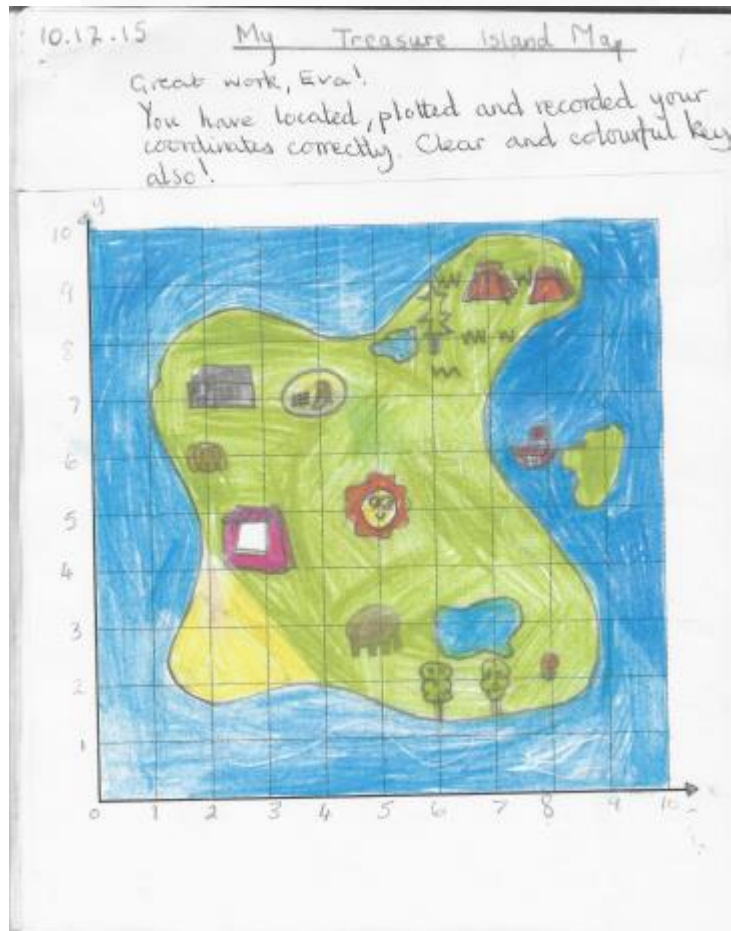
Self Assessment

The difference between co-ordinates and Grid References are: In Co-ordinates the thing on the map is where the two lines meet. In co-ordinates it is all numbers. For Grid References the point on the map goes inside the square

- H (3,7) Office
- I (8,9) ICT
- J (7,9) Changing rooms
- K (8,7) Library

Careful and accurate use of coordinates to locate different areas on the map.
Well done, Eva!

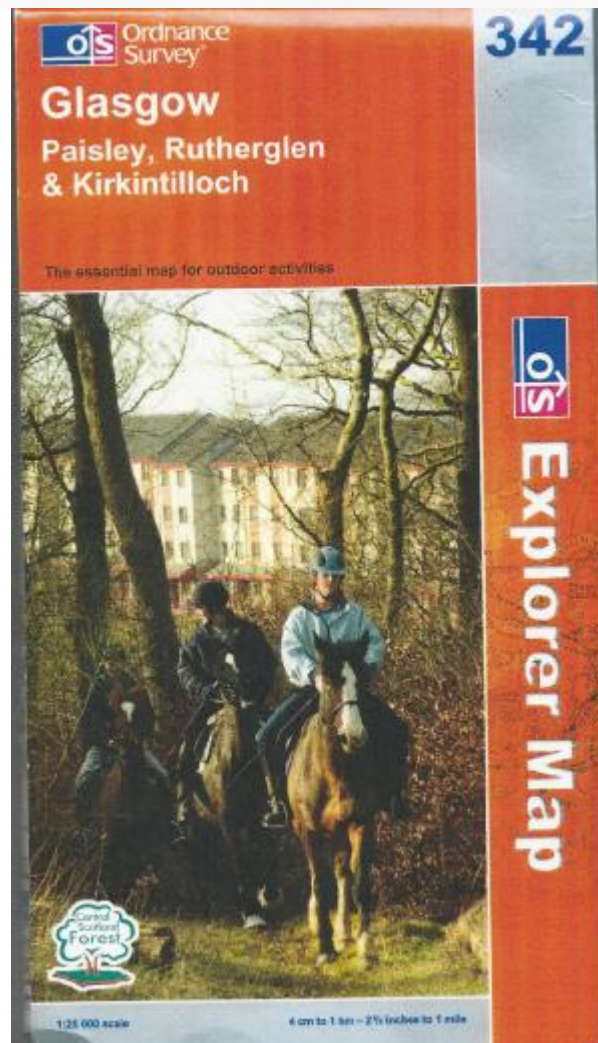
Lesson 3: Coordinates



Key	My Questions
= Ice-cream Shop ✓	Give the co-ordinates for
= Trampoline Park	① boat : (8,6) ✓
= boat	② Farm : (2,7) ✓
= Land	③ Play park : (4,7) ✓
= beach	④ Campsite : (7,9) and (8,9) ✓
= Tree	⑤ Trampoline Park : (5,3) ✓
= Farm	What is located at the following co-ordinates points?
= Campsite	⑥ (3,3) : beach ✓
= tree	⑦ (9,1) : water ✓
= water ✓	⑧ (2,6) : Dog park ✓
= play park ✓	⑨ (7,9) : Campsite ✓
= Drive through to see the lions.	⑩ (4,7) : play park ✓
= Dog Park	The treasure is hidden where a mammal goes rear (5,5)

Lesson 4:

OS Maps and 4 Figure Grid References










14.12.15 Ordnance Survey Map

Social Studies: Mapping Skills
Using an Ordnance Survey Map

Use your Ordnance Survey map and answer these questions in your social studies jottar.

1. What area does this map cover?
2. What is the symbol for a narrow road with crossing places?
3. What is the symbol for the Glasgow underground?
4. What is the symbol for a place of worship with a tower?
5. What is the symbol for a bus or coach station?
6. What is the symbol for a picnic site?
7. In which grid reference would you find Neilston?
8. In which grid reference would you find South Nitshill?
9. In which grid reference would you find Renfrew Golf Club?
10. In which grid reference would you find Johnston Loch?
11. What would you find in grid references 52 55 and 53 55?
12. What would you find in grid reference 5565 ?
13. What would you find in grid reference 5562?
14. What would you find in grid reference 4859?
15. What would you find in grid reference 5466?

14.12.15 My Answer

1. Glasgow, Paisley, Rutherglen and Kirintilloch. ✓
2.  ✓
3.  ✓
4.  ✓
5.  ✓
6.  ✓
7. NS 4756 ✓
8. NS 5259 ✓
9. NS 4268 ✓
10. NS 7068 ✓
11. Mearns Primary School ✓
12. Post Ice. ✓
13. Moss Park. ✓
14. Harrow Reservoir ✓
15. Bromhill. ✓

I have learnt the OS maps have a key with lots of information.

I found it difficult to find places on the OS map because there was so much detail and some places started the same but it was a very good effort, Eva! ^{she} _{pro}

You have used the key correctly and you understand how to record 4 figure grid references. You have located some places correctly!