

Lesson 15 The compass and its uses

Learning objectives

Children should learn:

- the names of simple compass directions;
- simple locational language;
- to describe the location of features on a map.

Success criteria

Children should be able to:

- use a compass with the four main points of a compass;
- describe the location of features and routes on a map.

Programme of Study

Develop knowledge about the world.

Prior learning

It would be helpful if the children knew left and right.

Vocabulary

Compass needle, magnetic north, direction of travel

Resources

- Compasses (Silva type recommended)
- **Activity sheet:** *Make your own compass*
- Squared paper
- Paper fasteners

Cross-curricular links

Science

Differentiation

Some children will need specific guidance and instruction on how to use the compass.

Some children should be able to use the compass and start to understand directional terms in their work.

Assessment evidence

The children are able to understand the use of a compass and how to use it with some accuracy.

Starter

Show the children a compass and point out:

- The rotating bezel
- The floating arrow, with the red end always pointing north (towards the north magnetic pole)
- The base plate
- The direction of travel arrow

Share the Learning objective and the Success criteria with the children.

Introduction

Demonstrate how a compass works, i.e. the needle (usually the red end) always points north. Explain to the children that they need to realise that the compass needle points directly to the magnetic north (the Earth acts like a large magnet), which is not quite the same as the North Pole. The teacher can show that if you hold a magnet or piece of iron close to the compass the needle will deviate from the north.

Learning activity 1

Explain to the children that they are going to make a paper model of a compass using **Activity sheet:** *Make your own compass*.

Learning activity 2

Devise a mnemonic to help you remember the order of the four points of the compass (e.g. Norman, Eats, Shredded, Wheat).

Learning activity 3

In groups of two each with a compass ask the children to go into the playground and set the compass to north and identify what they can see to the north. They can then identify human/physical features to the south, east and west. (Refer to Lesson 11.)

Learning activity 4

Using squared paper, ask the children to mark North at the top of the paper then ask them to plot the route, following the instructions below and colouring the squares as they progress.

Go two squares north,
Then three squares east,
Then four squares north,
Then two squares west.

Ask: *What grammatical sign have you drawn?*
(Answer: A question mark)

Ask the children to devise a set of instructions for a partner to follow.

Plenary

Ask the children to recall their mnemonics.

Ask the children to write a written explanation answering:

- Why does the compass needle always point towards the north?
- When you were out in the playground identifying features did you notice some features were for example neither west nor south?
- What direction might we call that, say if it is between south and west?



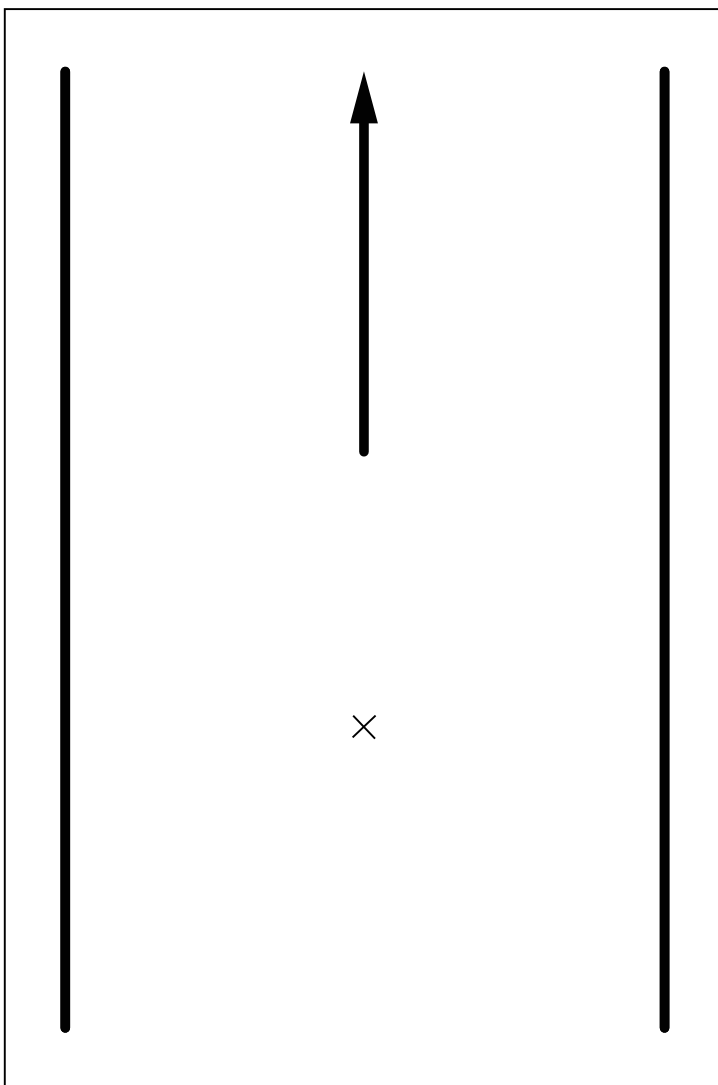
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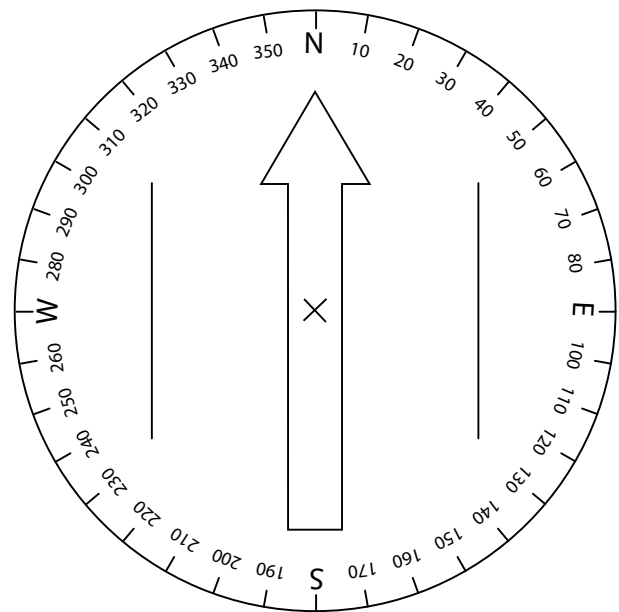
Make your own compass

Instructions

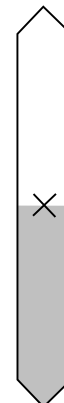
- 1) Cut out the three parts of the compass carefully.
- 2) Place the bezel on top of the base plate and then the compass needle on top of the bezel.
- 3) Line up the three parts using the 'X' as the centre point.
- 4) Insert a paper fastener through the 'X' to complete the compass.



Base plate with direction of travel arrow



Bezel



Compass needle

Lesson 16 Using the compass

Learning objectives

Children should learn:

- the names of simple compass directions;
- simple locational language;
- to use simple maps;
- to plot a route on the ground.

Success criteria

Children should be able to:

- use the four main points of a compass;
- describe the location of features and routes on a map.

Programme of study

Use geographical skills.

Skills and processes

Geographical skills and fieldwork:

- Use simple compass directions N,S,E,W.

Prior learning

Children should have learnt the main points of the compass from Lesson 15.

Vocabulary

Compass needle, magnetic north, direction of travel

Resources

- Compasses (Silva type recommended)
- **Activity sheet:** *Using the compass*
- Markers to place on the ground

Cross-curricular links

Science

Differentiation

This activity is a common task and could be carried out in mixed ability groups.

Assessment evidence

The children are able in their groups to negotiate how to complete the route across the playground successfully.

Advance preparation

Teachers need to have surveyed the playground/sports field before the lesson, to set up starting points and finishing points.

Starter

Remind the children of how to use a compass. Demonstrate and ask for volunteers to show the class how it is read correctly.

Share the Learning objectives and the Success criteria with children.

Introduction

Take the children out into the school playground and demonstrate how you can plot a route using a compass.

Learning activity 1

Using a compass plot a route across the playground.

Instruct the children in groups of three to plot their route from a specific starting point to see how close they get to the pre-determined finishing point. Each group will need a set of instructions, a model set is shown in **Activity sheet:** *Using the compass*.

Plenary

Ask: Did every group find the correct end marker for their route?

Discuss with the children the reasons why some of them may not have found the marker. (Pace measurements may vary, slight inaccuracies in walking on a compass bearing.)

How could the children improve?



Name: _____

Date: _____

Using the compass

Instructions for plotting the route with the compass.

From the starting point:

Go 10 paces north,

Then 5 paces south,

Then 10 paces east,

Then 15 paces north,

Then 5 paces to the west place a marker on the ground.

How close are you to the finishing point?

Use groups of three, one to read out the instructions, one to hold the compass and direct the third who paces out the steps and is guided by the compass holder.

Lesson 17 Using directional knowledge

Learning objectives

Children can:

- begin to confidently use directional language.

Success criteria

Children can:

- use directional language to describe a route.

Programme of Study

Use geographical skills.

Skills and processes

Geographical skills and fieldwork:

- Use simple compass directions N,S,E,W and locational and directional language (near and far, left and right) to describe the location of features and routes on a map.

Prior learning

It would be helpful if the children have used this type of language in their literacy work.

Vocabulary

near, far, left, right, distance

Resources

- A3 paper
- YouTube clip:
<http://www.youtube.com/watch?v=ojfDM6lMoZM>
The Gingerbread man - A song for children

Cross-curricular links

Computing

Literacy - spoken language

Differentiation

Some children may need help with ensuring they add sufficient detail to their maps from the TA.

Some children could be asked to make their routes difficult and demanding for the Gingerbread Man.

Assessment evidence

Children can use a good range of directional language in their route descriptions.

Starter

Talk to the children about directions recapping work carried out previously. Remind them of the compass points and compass work they have already covered.

Make a class list of directional words such as north, south, east, west, near, far, left, right, distance.

Share the Learning objectives and Success criteria with the children.

Introduction

Show the children:

<http://www.youtube.com/watch?v=ojfDM6lMoZM>
The Gingerbread man - A song for children.

Talk about the journey the Gingerbread man makes and refer to geographical features.

Remind the children about picture maps. (They may have covered this in work completed on their own locality.)

Learning activity 1

Give the children a sheet of A3 and ask them to draw a picture map showing a route the Gingerbread Man could take. Tell the children to make sure he has a clear starting point i.e. the kitchen table from where he jumps down and runs off, to a place of safety.

Ask the children to map his route in pictures, making sure he passes many geographical features. When the children have finished drawing their maps ask them to swap with a partner, asking the partner to trace the route using directional language.

The children must listen carefully to ensure their partners are using the correct terms.

Plenary

Return to the YouTube clip used in the introduction and ask the children to join in with the song.