

Year 4 Angles and Coordinates: A Step-by-Step Guide for Parents

This step-by-step explanation to year 4 angles and coordinates can help you support your child's learning at home. The subject is broken down into manageable chunks, providing you with a simple guide to follow when learning about year 4 angles and coordinates, either to support your child's homework or if you decide to give your child some extra support. In this guide, you will find a step that matches your child's level of understanding and suggested activities which can be used to support that step.

Within **this area of the website**, you will find a selection of resources intended to help your child learn about each step of this guide. Each step also contains a keyword or phrase that you can use to search the Twinkl site for more resources and activities, designed to support your child in achieving that stage. Simply type the keyword or phrase into the search bar and press enter to explore together.



We hope you find the information on our website and resources useful. The contents of this resource are for general, informational purposes only. This guide is intended to offer parents general guidance on what subject areas tend to be covered in their child's year group and where they could support their children at home. However, please be aware that every child is different and information can quickly become out of date. There are some subject areas that we have intentionally not covered due to the nature of how they are taught or because a trained professional needs to teach these areas. We try to ensure that the information in our resources is correct but every school teaches the national curriculum in its own way. If you would like further guidance or are unsure in any way, we recommend that you speak to your child's teacher or another suitably qualified professional.

Angles and Coordinates

What Are Children in Year 4 Taught about Angles and Coordinates?

Throughout year 4, children are taught to:

- identify acute and obtuse angles and compare and order angles up to two right angles by size;
- describe positions on a 2-D grid as coordinates in the first quadrant;
- describe movements between positions as translations of a given unit to the left/right and up/down;
- plot specified points and draw sides to complete a given polygon (a 2D shape with straight sides).

This guide will help you support the learning of year 4 angles and coordinates at home. Each step contains an explanation to that stage and a link to an appropriate resource which can be used at home to support your child's learning.

As well as using the resources in this category, and the keyword searches to help your child with angles and coordinates, below are a few ideas for games and activities to help your child practice angles and coordinates at home.

Angle Hunt

Once your child is familiar with acute, right and obtuse angles, you can complete an angle hunt at home. Ask your child to find and note all the places they can spot different types of angle in your home. You could ask them to take pictures of the different angles on a smart phone or tablet computer and then make an angle poster, identifying different types of angles, with the photos they have taken.

The Penny Shop

Provide your child with squared paper (you can find some **here** on the Twinkl website). They can draw a set of axis and label them with numbers. Now ask your child to draw an island and put different features on it such as a tree, skull, ship and a mermaid lagoon. Below the map, ask your child to write down the coordinates for these specific locations on the map.

Map Reading

Find examples of maps with grid lines and coordinates; you can use atlases, books of maps or online maps. Practice reading these with your child and ask them to say the coordinates for specific images or places on the map.

The Turn Game

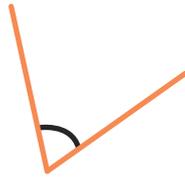
This is a fun, physical activity to help your child recognise that angles can be used to describe turns. While standing on the spot, ask your child to turn different amounts of right angles to the left or the right, for example: turn 1 right angle to the left or turn 3 right angles to the right.



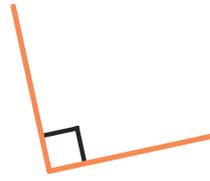
Step 1

Identify Acute and Obtuse Angles and Compare and Order Angles up to Two Right Angles by Size

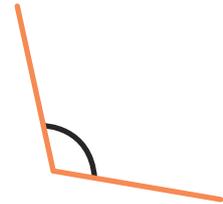
An acute angle is an angle smaller than 90° (a right angle). An obtuse angle is bigger than 90° (a right angle) but smaller than 180° (a straight line or two right angles together). For example:



acute angle



right angle



obtuse angle

Moving on from their work in year 3, children are taught to recognise acute and obtuse angles in year 4. At home, you can use this **Acute and Obtuse Angles Worksheet** to help your child practice recognising different types of angles.



Describe Positions on a 2-D Grid as Coordinates

In year 4, children are taught to read and plot coordinates by using the numbers and/or letters on the axis. They do this by using the horizontal axis first and then the vertical axis. A simple way to help your child remember this rule is to use the following expression:

Go along the corridor and up the stairs.

This expression refers to going along the horizontal axis to get the first coordinate and then up the vertical axis to get the next coordinate. Try using this **What are the Coordinates in the First Quadrant Worksheet** at home to help your child practice reading coordinates.

Step 2



Step 3

Describe Movements between Positions as Translations of a Given Unit to the Left/Right and Up/Down

Once children are familiar with writing coordinates, they are introduced to the term translation. When you translate an object on a grid, you move it from one position to another. For instance, if a picture of a cake was at the coordinates (3,2) and then was translated (moved) 3 to the right, the new coordinates would be (6,2). Sometimes children will be asked to translate an object following a specific set of instructions (such as left 2 and up 3), state the coordinates for a translated image or do both. Try this **Coordinate Translations in the First Quadrant Worksheet** to help your child practice finding the new coordinates for translated objects.



Step 4

Plot Specified Points and Draw Sides to Complete a Given Polygon (A 2D Shape with Straight Sides)

A polygon is a 2D shape that has straight sides, for example, a square or octagon. Using their knowledge of plotting coordinates, children in year 4 are taught to join their coordinates together to make different 2D shapes (polygons). Your child can complete these **Coordinates Polygons in the First Quadrant Differentiated Worksheets** to help them practise.



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Twinkl Boost is a range of intervention resources, created to support and lift learning with children at every level. These include our easy-to-use SATs and Phonics Screening resources.



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Imagine resources are designed to help your children to think creatively, question and imagine. Every week, a new topic consisting of five photos, each with related activities, is created.



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ORIGINALS

Twinkl Originals are engaging stories written to inspire children from EYFS to KS2. Designed to encourage a love of reading and help curriculum-wide learning through accompanying resources.



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KIDS' TV

Twinkl Kids' TV is our wonderful YouTube channel dedicated to fun and informative video-style resources full of new and creative activities you can try at home!