

Coordinates

Teacher Notes

Introduction

This file was first developed to help motivate year-7 low attainers in their study of coordinates.

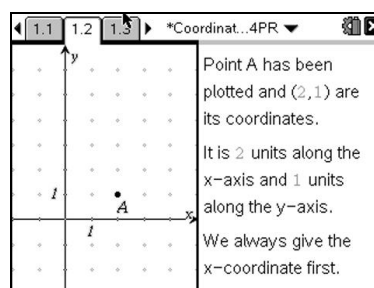
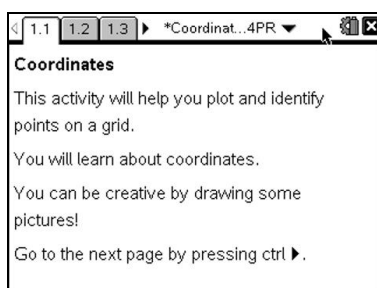
A student teacher planned the lesson after working with the TI-Nspires and help was available from the Learning Support Assistant and regular teacher. The theme at the time was Christmas, but the file has been revised so that it can be used at any time.

Skills required

- Moving from one page to another in a TI-Nspire document.
- Moving from one part of a split screen to another.
- Plotting points on a Graphs page.

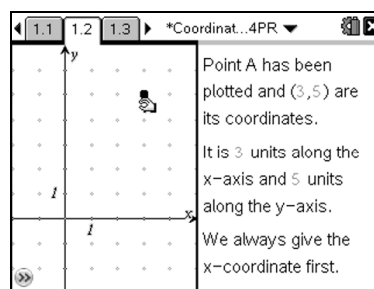
The activity

The first page tells the learner the objectives and the second page is split between a graphs page and description of how coordinates work.

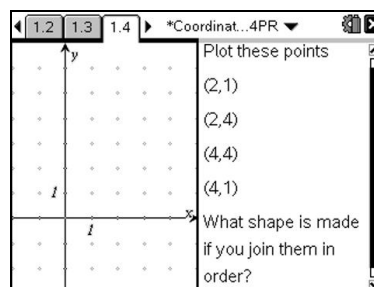
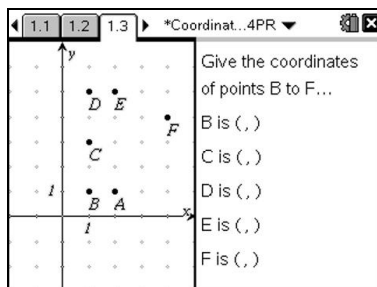


Note: on page 1.2 it is possible to grab point A and drag it around the screen. The coordinates on the right-hand side change.

This is very useful if you are demonstrating on a large screen and you may wish to encourage students to do this on their handhelds. (Move the cursor to point A, click and hold on the centre of the Touchpad to close the displayed hand, move it to a new position and click again.)

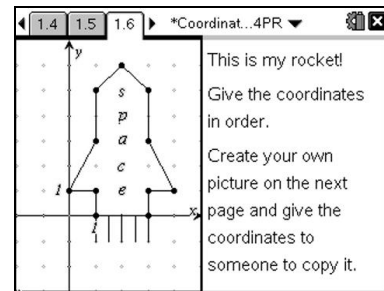
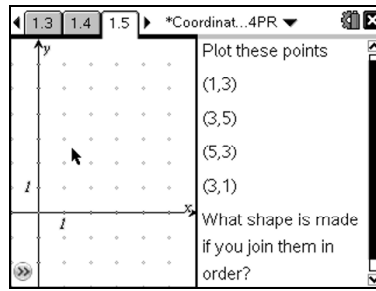


Pages 3 and 4 are split so that the student can type in the coordinates on page 1.3 and plot coordinates on 1.4 where a link is made with identifying shapes.



To plot the points on the grid use the *Plot On* command: press **menu** **7** **2**

Page 1.5 gives further practice in plotting points and, after practising writing down the coordinates on page 1.6, the students can engage with the key concept of creativity and do their own picture on page 1.7.



In order to develop the PLTS (personal learning and thinking skill) of communication, the students should give the coordinates of their picture to another student who can then replicate the picture.

If you wish students to be able to join the points as on page 1.6 there are various tools available. The easiest is perhaps the *Segment* command (press **menu** **7** **2**). Other options are in the *Shapes* menu, e.g the *Polygon* command (press **menu** **9** **4**).

You may wish to use one more command: *Coordinates and Equations* (press **menu** **1** **7**). This will enable students to display coordinates of points on their picture, enabling them to check their work.

