# See the source image**Job title: Cartographer**

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| **Job title: Cartographers** | Cartographers collect information about the geography of an area to design and produce maps, charts and plans. |
| **Entry requirements:** | **University:**  You can take a degree in:   * geography * geographical information systems (GIS) * land surveying * earth sciences * oceanography   Employers may also accept degrees in other subjects like computer science, software engineering or graphic design.  A postgraduate qualification may help you to find work in a specialist field of cartography like GIS.  You'll usually need:   * 2 to 3 A levels for a degree * a degree in a relevant subject for postgraduate study   **Apprenticeships:**  You could complete a geospatial survey technician advanced apprenticeship, or geospatial mapping degree apprenticeship.  You'll usually need:   * 4 or 5 GCSEs at grades 9 to 4 (A\* to C) and A levels, or equivalent, for a higher or degree apprenticeship   **Work:**  You may be able to get into this job by starting as a trainee cartographic technician and working your way up.  Employers may look for an apprenticeship in geospatial surveying, or A levels or equivalent, in geography, art and design, mathematics or computing.  **Other Routes:**  If you want to work as a cartographer in the armed forces, you can apply to the [British army](https://apply.army.mod.uk/roles/royal-engineers/geographic-technician) as a geographic technician, or the [Royal Air Force](https://www.raf.mod.uk/recruitment/roles/roles-finder/air-operations-support/air-cartographer/) as an air cartographer.  After you leave the services, you could use your experience to find work in commercial cartography and mapping. |
| **Skills required:** | You'll need:   * knowledge of geography * maths knowledge * to be thorough and pay attention to detail * analytical thinking skills * excellent written communication skills * excellent verbal communication skills * design skills and knowledge * the ability to work well with others * to be able to use a computer and the main software packages confidently |
| **What you'll do:** | In this role you could be :   * using desktop publishing and specialist computer software * designing digital or paper based maps * checking maps and charts are accurate and to scale * editing maps, adding and removing new roads, structures or landmarks * collecting and analysing data from remote sensors on satellites and planes * using GIS to model and analyse landscape features * plotting the heights and positions of geographical features from aerial photographs * carrying out topographic surveys of the land and hydrographic surveys of the sea and coastal areas |
| **What you’ll earn:** | £18,000 Starter *to* £45,000 Experienced |
| **Working hours, patterns and environment:** | * 39-41 hours per week * Evenings occasionally * You could work in a laboratory. * Your working environment may be emotionally demanding. |
| **Career path and progression:** | With experience you could become a senior cartographer and manage mapping projects and staff.   If you specialise in working with GIS, you could apply for [Chartered Geographer (GIS) status](http://www.agi.org.uk/).   You could also work on a freelance basis, but you’ll need your own mapping equipment. |