Useful Geographies

Geographic skills

Geographical skills are fundamental to the way we live, the things we do and the world we live in. We all need geographical skills.

Geographical skills are central to Geography’s distinctive approach to recognising and exploring patterns, processes and relationships in the world we live in.

As a result, it is important that people should acquire the tools and techniques that will allow them to think and act geographically.

These skills are:
1) Asking geographic questions, such as why things are where they are and how they got there,
2) Acquiring geographic information, such as locating, observing and systematically recording places, people and environments, using maps, fieldwork, interviews, reference material and library research,
3) Organising geographic information by translating data into visual forms, making maps, graphs, tables, spreadsheets, time lines, oral and written summaries,
4) Analysing geographic information, by probing examining, explaining and synthesising patterns, processes, relationships, connections, trends and sequences
5) Answering geographic questions such as using generalisations, making conclusions, inferences, inductive and deductive reasoning.

Generally, geographic skills provide people with the means to ask and answer geographic questions as well as to acquire, organise and analyse spatial information.

Our own geography is important therefore we all need geographic skills.
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Using maps

Geography helps us to learn how to use and make maps. As we are all travelling much more, the skills to read and create maps have become even more important for everyone to have.

We all enjoy looking at maps as we are curious about the world we live in. Maps are an important way of communicating, just like books, television, mobile phones and iPods. Reading maps is a geographical skill which we all need to be able to have. It just needs a bit of practice and some interest about the world.

Maps are all around us in our busy lives. We use road maps for travelling, planning holidays, plans of shopping centres for finding what we need, street plans of new towns and cities we visit, plans for homes we want to live in and of the weather.

A map is a visual representation of an area. Direction, orientation, scale, projection and symbols are some of the important features of maps. It uses symbols to highlight different features and it shows the relationships between different places, regions and topics. Maps are available to us in many different formats, from paper-based to electronic. Digital maps are available on the Internet, via mobile phones and in satellite navigation systems.

Cartography is the study and practice of making maps which are representations of the Earth on a flat surface. Maps created by doing surveys of the area. Many large national surveying projects have been carried out by the military. Nowadays satellite information and aerial photography is used to make maps much faster than before and even more accurate. Technologies such as Geographical Information Systems (GIS) are used to greatly improve the usefulness and flexibility of maps.

Maps are fun! Once you start to explore them, you can look at places in a lot of detail.
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GIS

GIS (Geographical Information System) is a potent tool which is used by most public and private organisations around the world to look at a wide range of information about places in the world. We can use GIS to store, retrieve, manipulate and analyse spatial information and related data (attributes).

A Geographical Information System (GIS) is a tool that uses computer technologies to help us to easily understand and explain the world around us. A GIS captures, stores, integrates, analyses, manages, and presents data that refers to or is linked to location. Geo-information tools help us to examine, explore and investigate this information. GIS stores the information in a database, analyses it through the GIS software and shares and displays the results, as it can be used to present diverse and complicated information visually.

GIS is a very useful tool for understanding the complex world we live in and in planning and management, for example in hazard and risk prevention with fires, flooding and earthquakes, or for land use decision making. The Internet increases GIS possibilities.

There are many questions that are able to be answered by using a GIS, some of these are:
Location: What is at a particular place?
Condition: Where can we find certain conditions?
Trend: Comparing how things have been changing.
Routes: The system calculates the optimal path between two points.
Patterns: Certain regularities and irregularities can be identified.
Models: To simulate what will happen following possible phenomena.

Geographers use GIS as a fundamental tool to understand and care for the world we live in.
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Risk

Calculating risk is something that humans constantly do in the decision making process. Understanding what your potential losses are, and comparing them with the likely revenues is common to us all, whether in deciding which job to take, where to live or in translating a task into actions.

Geographers study risk in terms of specific applications. The risks of disease in particular periods of time and at certain locations are investigated in order to better understand the process of disease distribution, spread and prevention. The risk of hazards occurring because of particular weather conditions or prevailing environmental conditions in particular places is evaluated from a geographic perspective since both weather and environment are influenced by location and situation. Examples of this include landslides and avalanches, flooding and other disasters.

Risk exposure and risk levels differ from one sector of the population to another. Children have a very different approach to risk than adults. Understanding road safety is therefore an example where understanding of who lives where and uses a road is important for managing risk.

Risk assessment is being continuously applied in the insurance sector. Insurances nowadays calculate premiums on risk exposure of particular areas, people and infrastructure. Being interdisciplinary, geographers are able to investigate risk from all angles.
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Transport

Transport is an established subject area within Geography. It is relevant for geographers because it encompasses the movements of people, goods and materials over space.

Understanding the trends and patterns of movement aids decision makers, planners and transport experts in developing strategies that will improve the efficiency of transport systems and to maximise for example, the efficiency of transport infrastructures.

Transport geographers use population information as well as socio-economic data from censuses and travel surveys to map the patterns of distribution of people and goods. From these, predictions can be made of future travel behaviour in all the sectors of transport, land, sea and air. With increasing globalisation and greater demands on transport brought about by new and improved technology, the logistics and efficient movement of goods and people are becoming extremely relevant. Geographers have the skills to collect and analyse geographic data related to transport. They assist planners and engineers in estimating demand and therefore improving the effectiveness of transport systems.

In cities, for example, understanding the transport behaviour of people helps planners identify the best public transport options, through a number of principles:
- there is a peak of activity at certain times (e.g. from schools, factories, offices)
- the patterns of movement are determined by the ability of individuals to travel, for example how far will they go? This also determines their choice of transport.
- personal circumstances condition travel behaviour, so where people are living and travelling determines the infrastructure that needs to be provided economies of scale supports the feasibility of transport services land use distribution and activities over space influence transport networks.

In applying these key principles transport geographers play an important role in determining infrastructure developments and optimal service provision.
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Facilities management

Facilities management is about maintaining and developing the services we need by understanding the processes in the system. Geographers work to develop the services which support and improve the effectiveness of the activities taking place within that system.

The facilities we need include the buildings we use and places where events are held and activities take place. As they are associated with human and physical organisation, geographers are able to contribute to their effective management.

Facilities management refers to the services required for the management of buildings and real estate in order to maintain and develop the services offered at these places, maximise their efficiency and effectiveness and therefore increase their value. The management services range from property strategy and communications infrastructure to facility maintenance and administration. As a result, the role of facilities management is to ensure that everything is available and operating properly for their occupants. In addition, effective facilities management, combining resources and activities, is vital to the success of any such system, rendering the facility manager a great influence upon the quality of life within that system.

Geography as a discipline makes a significant contribution in facilities management, because one of the basic characteristics of facilities is their location and hence their spatial dimension and the influence they have on the surrounding physical and human environment. Geographers can use geo-technologies such as Geographic Information Systems (GIS), to integrate building design and location, with movement patterns and for example utilities information with spatial (location) information through maps and plans to distribute them over the Internet. In other words, through the use of GIS the integration of diverse information sources (spatial and non-spatial) can be incorporated together through a seamless process that provides facility managers with a single source solution to help their decision making and meet their management needs.

Geography looks at understanding the patterns of movement of people, goods and materials. Transport applications in geography provide the necessary tools for decision-makers who are seeking to implement strategies aimed at improving transport links.
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Planning

Planning is the organisational process of creating and maintaining a plan. It is a scientific discipline, which uses skills and techniques to help formulate policy on new and existing developments at various scales and different locations.

Planning deals with how the land is used on the basis of a series of regulations that allow or prohibit certain land uses. Planning is used to influence the distribution of human activities in different places. Plans normally take account of political, economic, social, cultural and ecological aspects of society. They may be designed for many different purposes, for example for balanced regional development, improving the quality of life, the responsible stewardship of natural resources, or the protection of the environment.


The main objectives of land use planning are:

- To balance development in a responsible way,
- To improve the quality of life of the people, by their access to the use of services and public infrastructure and cultural and natural heritage.
- To manage natural resources in a the responsible way and protect the environment
- To use the land in a rational and balanced way, by defining acceptable uses, the creation of adequate infrastructure networks and promoting actions that best supports the strengthening of community spirit.

Planning processes vary from one country to another. Geographers are involved in most aspects of planning. Geographic Information Systems (GIS) and Remote Sensing, including aerial photography, are often used.
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Education

Geographical education, the learning and teaching of Geography, makes a significant contribution for understanding the world around us. Geographical knowledge, skills and understanding are lifelong learning for the future as people and places around the world become linked together much more than ever before.

Geography is the science which seeks to explain the character of places and the distribution of people, features and events as they occur and develop over the surface of the Earth. Geography is concerned with human - environment interactions in the context of these locations. Its special characteristics are its breadth of study, its span of methodology, its synthesis of work from other disciplines such as the physical sciences and the humanities and its interest in the future management of people - environment interrelationships.

Geographers ask the following questions. Where is it? What is it like? Why is it there? How did it happen? What impacts does it have? How should it be managed for the mutual benefit of humanity and the natural environment?

Good geography teaching in schools helps children become interested in their world. Children today are growing up in a world where people and places are becoming more and more linked together. Geography is the subject that gives them the knowledge, skills and understanding to help them see how the world works. It explains how aspects such as rivers, oceans, mountains and climate function and how we are connected with our physical environment.

Geography helps us to understand the lives of people in many places. With increasing migration around Europe, it is vital that young people are able to understand one another and respect those from places they do not know: geography helps them appreciate other people’s backgrounds, experiences and values. Geography is the subject that links ideas together and is especially important in helping us to understand the big questions of climate change, political developments and economic trends that affect all of our lives.

Learning geography carries on throughout our lives. When we watch news and programmes on television from other countries, when we travel for pleasure or work, when we communicate through our computers and other types of technology with other people, all these experiences help us develop our understanding of the world.
Resources management

Resources, which can be human such as work, invention and technology, or natural like soil, water, plants and animals, are the means to meet people’s needs and desires for any activity, action or endeavour that they are involved with and at any time that these needs may develop.

As a result, in order to service people and at the same time protect our environment, resources must be appropriately managed. Geographers are employed in understanding resources as they concern the natural and human environment.

Resources need to be managed and organised for the purpose of coordination, so that there are no shortages or surpluses. Resource management is a process whereby the needs of people are met and the conservation of the resource base for the future is considered. Human resource management is the act of allocating human resources among various activities, actions or endeavours that are necessary in the maintenance and betterment of human existence. Natural resource management is the management of people’s interaction with and impact upon the environment.

Geography as a discipline makes a genuine and worthwhile contribution to resource management, because all resources represent important elements of the world’s spatial system. Geographers use Geographic Information Systems (GIS), to help us examine, analyse and manage human events, phenomena, places and of course the human and physical environment.

Geographers are critical for the future of our planet.