

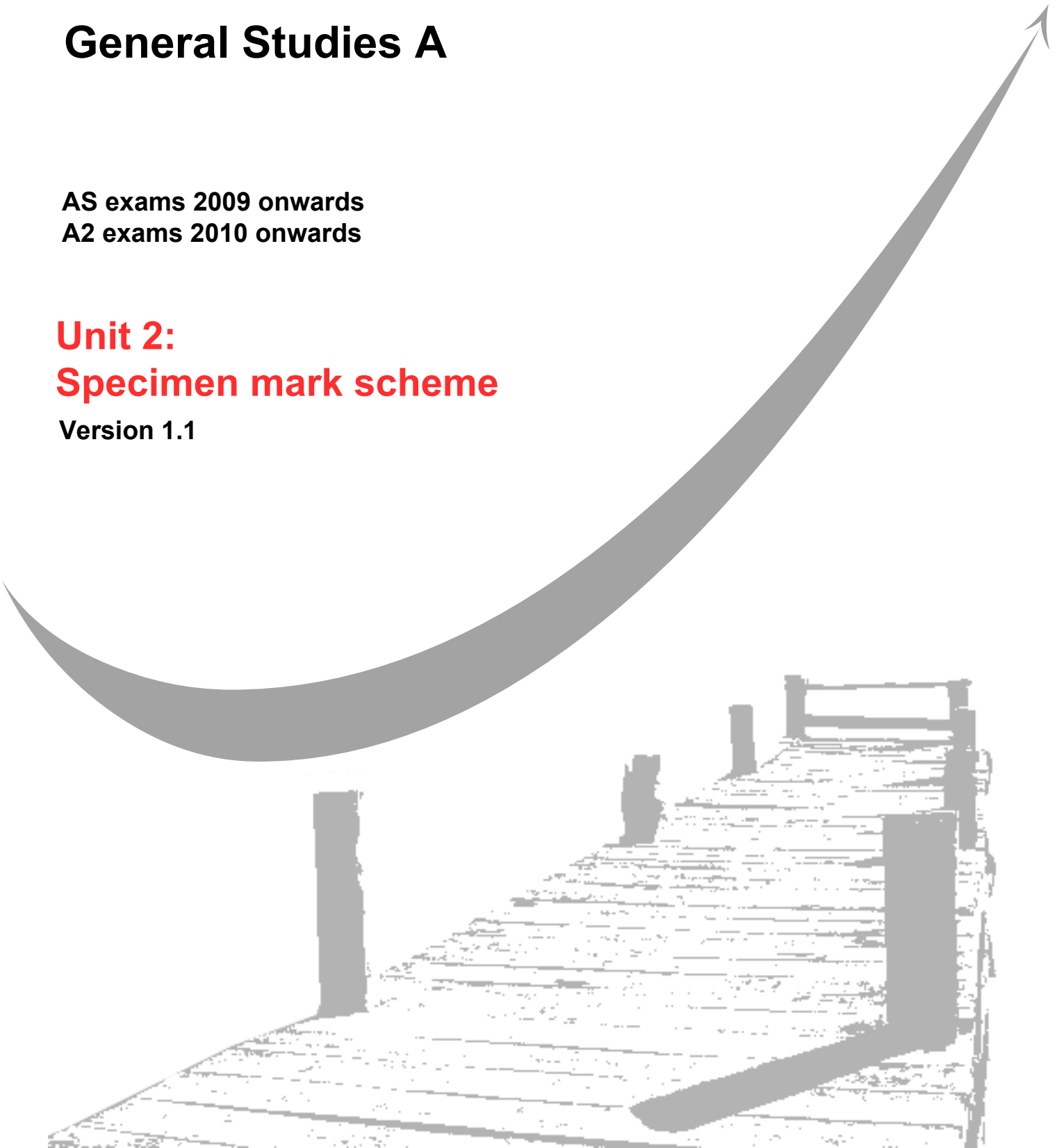
GCE
AS and A Level

General Studies A

AS exams 2009 onwards
A2 exams 2010 onwards

Unit 2: **Specimen mark scheme**

Version 1.1



The specimen assessment materials are provided to give centres a reasonable idea of the general shape and character of the planned question papers and mark schemes in advance of the first operational exams

Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

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GENERAL STUDIES A (AS)

SPECIMEN UNITS

UNIT 2 : SECTION A

List of keys

| | | |
|---------------|---------------|---------------|
| 1.1 D | 1.11 C | 1.21 C |
| 1.2 C | 1.12 B | 1.22 D |
| 1.3 B | 1.13 A | 1.23 C |
| 1.4 A | 1.14 B | 1.24 A |
| 1.5 C | 1.15 D | 1.25 D |
| 1.6 C | 1.16 D | 1.26 A |
| 1.7 A | 1.17 D | 1.27 D |
| 1.8 D | 1.18 D | 1.28 D |
| 1.9 A | 1.19 A | 1.29 B |
| 1.10 C | 1.20 C | 1.30 A |

Unit 2 Section B (Science and Society)

INTRODUCTION

The nationally agreed assessment objectives in the QCA Subject Criteria for General Studies are:

- AO1** Demonstrate relevant knowledge and understanding applied to a range of issues, using skills from different disciplines.
- AO2** Marshal evidence and draw conclusions; select, interpret, evaluate and integrate information, data, concepts and opinions.
- AO3** Demonstrate understanding of different types of knowledge, appreciating their strengths and limitations.
- AO4** Communicate clearly and accurately in a concise, logical and relevant way.

- The mark scheme will allocate a number or distribution of marks for some, or all, of the above objectives for each question according to the nature of the question and what it is intended to test.
- In most cases mark schemes for individual questions are based on *levels* which indicate different qualities that might be anticipated in the candidates' responses. The levels take into account a candidate's knowledge, understanding, arguments, evaluation and communication skills as appropriate.
- Examiners are required to assign each of the candidates' responses to the most appropriate level according to **its overall quality**, then allocate a single mark within the level. When deciding upon a mark in a level examiners should bear in mind the relative weightings of AOs (see below). For example, in questions 2-4 the most weight should be given to AO1, then AO4, then AO2 and finally AO3.
- *Indicative content* is provided as a guide for examiners. It is not intended to be exhaustive and other valid points must be credited. Candidates do not have to cover all points mentioned to reach Level 3.
- A response which bears no relevance to the question should be awarded no marks.

Distribution of marks across questions and assessment objectives for Unit 2, Section B

| Question Numbers | | Q2 | Q3 | Q4 | Total AO marks Section B |
|--------------------------|---|----|----|----|--------------------------|
| Assessment Objectives | 1 | 12 | 12 | 12 | 12 |
| | 2 | 8 | 8 | 8 | 8 |
| | 3 | 5 | 5 | 5 | 5 |
| | 4 | 10 | 10 | 10 | 10 |
| Total marks per Question | | 35 | 35 | 35 | 35 |

GENERAL MARK SCHEME

| Level of response | Mark Range | Criteria and descriptors for Assessment Objectives 1-4 |
|--------------------------|-------------------|---|
| LEVEL 3 | 13-17(18) | Good response to question Good to comprehensive knowledge, understanding and approach demonstrating overall grasp of the range and nature of issues (AO1). Capacity to interpret evidence and sustained ability to present relevant arguments, analysis and exemplification, focusing on the main points of the question (AO2). Shows some understanding of different types of knowledge, with some appreciation of their limitation in seeking to reach a reasoned and logical conclusion (AO3). Ability to communicate clearly and accurately in a fluent and organised manner (AO4). |
| LEVEL 2 | 7-12 | Reasonable attempt to answer question Modest to quite good knowledge and understanding approach demonstrating some grasp of the nature of some key issues (AO1). Moderate range of arguments, analysis and exemplification covering some of the main points of the question (AO2). Limited understanding of different types of knowledge but some ability to work towards or achieve a reasoned conclusion (AO3). Mostly clear and accurate communication and organisation (AO4). |
| LEVEL 1 | 1-6 | Limited response to the question Restricted/narrow knowledge and understanding of key issues (AO1). Simple, perhaps mostly unexplained points – or very narrow range – with limited interpretation or analysis and exemplification (AO2). Lacking in understanding of different types of knowledge with little or no evidence of ability to work towards a conclusion (AO3). Variable levels of communication and organisation (AO4). |
| LEVEL 0 | 0 | No valid response or relevance to the question |

2 (a) For what reasons have the number of people doing paid work from home increased considerably in the last 10 years? *(17 marks)*

(a) Reasons for increase in the number of people working from home

- Homeworking is not new although now it is often known as teleworking. Typically, prior to the ICT revolution, homeworkers were often unskilled and female, forced to work at home for very low pay because of family responsibilities.
- There has been a dramatic change in the structure of industry in the last two decades with the decline of manufacturing and the rise of the tertiary sector with homeworking growing rapidly as more people become accustomed to it and publicity grows. Over 8% of the workforce operates from home (compared to nearly 7% in Germany and 4.6% in France) with some estimates suggesting that 16% of the workforce will be working wholly or partly from home by 2020.
- For self-employed people who want to work from home, start-up is fairly easy and costs relatively low.
- Almost certainly the key factor has been the change in ICT which has helped to facilitate working from home making work far less location-specific. Word processing replaced typing and the home computer market has been revolutionised not least with the move from dial-up to high-speed broadband technology. Software packages like Microsoft Office XP allow for collaborative IT working. Laptops can be linked to work bases and the internet can be used to access information and provide telephone services. Phone prices are increasingly cheaper. Similarly there are far better printers, scanners etc and online monitoring tools for employers.
- Adaptive technologies such as single-handed keyboards, tracking balls and IBM's voice recognition scheme have helped disabled workers to adapt.
- For many workers, transport has become more difficult as both costs and congestion have risen. Working at home is likely to be less stressful and saves time.
- Working at home offers workers more flexibility which may be particularly helpful if there are childminding responsibilities and is often good for morale. (The Flexible Working Regulations of 2003 allow parents with children under 6 the right to request work flexibility including working from home.)
- No boss and nobody looking over your shoulder.
- Many employers prefer some homeworking because it helps to defray some of their capital costs. Worker productivity can be higher and high calibre staff who do not wish to work at the office can be retained. Employers may benefit from less absenteeism or days off due to sickness.

Any other valid points should be credited.

(b) Discuss the potential disadvantages of this form of work for some individuals.
(18 marks)

(b) Potential disadvantages of this form of work for some individuals.

- Not every employee is suited to flexible working. Individuals need to be self-motivated, disciplined and well-organised to work from home. Easy to put off doing the work and people who procrastinate and fail to organise effectively may not succeed.
- Work is often an essentially social activity. Some homeworkers complain that they miss the buzz of office social life and banter. They can become rather lonely and isolated, missing the social interaction and gossip.
- Many people still see 'working at home' as something for the lazy and equate it with 'skiving'.
- Not all jobs can be done at home. Colleagues unable to work at home might become resentful.
- Not being in the office can affect promotion opportunities.
- Facilities for homeworking vary. Can make the house crowded if space is limited.
- Need to separate home and work life – can put strain on relationship with spouse/children if work element becomes intrusive.
- Danger of a 24-hour work culture. Someone at home is almost deemed to be 'permanently available'.
- Computer security (access to a company intranet) might be compromised. (Need for firewalls, anti-virus software, content-filtering and encryption technology.)
- IT systems can go down and maintenance may be difficult/expensive.
- Specialist home-working insurance may be needed and some HSE regulations apply to homeworking.

Any other valid points should be credited.

3 (a) For what social and scientific reasons is a varied and balanced diet beneficial to all individuals? (17 marks)

(a) Social/scientific reasons for a varied/balanced diet.

Nutritionist have identified almost 50 essential nutrients, chemical substances such as vitamins, amino acids, minerals and essential fatty acids that the human body needs but cannot synthesise itself. A varied diet might include a broad selection of foods across traditional groups such as fruits, vegetables, cereals, meat, fish and dairy products. A balanced diet might include carbohydrates, protein, non-saturated fats, fibre, vitamins, minerals and the consumption of water/fruit juice. The specific balance depends on individuals and factors such as their age.

- A varied and balanced diet will help to balance positive and negative interactions among food components.
- Balance might include carbohydrates (for energy), fat (energy efficient), proteins (for metabolic tasks), calcium (teeth and bones), fibre (digestive system) etc. All contribute to healthier individuals, perhaps with higher self-esteem.
- 2006 government report indicated that, on current trends, > 1 million U16s in Britain will be classed as obese by 2010 (22% of girls and 19% of boys). Levels of obesity in children aged 2-10 have increased from 10% in 1995 to >14% in 2004. Britain currently has the highest obesity rates in the EU. Headlines such as ‘the fat man of Europe’ ‘junk food generation’ and ‘epidemic of obesity’.
- Balanced and varied diet, especially in conjunction with exercise, can reduce calories going in and increase those coming out. People often feel better both physically and mentally and have higher self-esteem.
- Childhood obesity can contribute to diabetes and have longer term impact on illnesses such as cardiovascular disease, high blood pressure and high cholesterol levels with implications for individual life expectancy and healthcare costs.
- Variety seems to protect against onset of Type 2 diabetes, some cancers and cardiovascular disease.
- Higher survival rates among those consuming food from a greater variety of food groups. (Lower life expectancy in north of England where there are more overweight people. Death rates from heart disease, stroke and related illnesses are 25% higher in the north-west than the south east.)
- Eating a variety of nutrient rich, low energy foods like vegetables and fruit, helps in weight control.
- Balanced diet requires moderation and this might discourage dangerous habits like binge drinking.

Any other valid points should be credited.

- (b) Discuss the difficulties involved in improving the diet of many young people and increasing their amount of exercise. (18 marks)**

(b) Difficulties in achieving this aim

- Formidable (if increasingly regulated) role of television advertising aimed at young people.
- Preferences of the ‘fast food’ generation. How much should be left to individual choice?
- Question of responsibility. Government can help to educate but can’t force people to change dietary habits.
- Restrictions planned/implemented for school vending machines. Too little, too late or should we be making longer term judgments?
- Jamie Oliver’s school meals campaign and new government regulation on content. Too early to judge impact – much expected but minimal funds available to school caterers and early evidence of some significant falls in take-up of school meals. What of nearby shops selling fat-filled burgers or fizzy drinks or indulgent parents packing lunch box with items high in sugar, salt and saturated fats?
- Inertia and cultural factors? Difficult to change attitudes? ‘It won’t happen to me’ factor common among young people.
- Do major retailers like supermarkets or McDonalds do enough to promote healthy eating among the young?
- Limited and often expensive health and fitness facilities, especially in inner city and rural areas.
- School sport/PE not popular among many young people. Not always given much curriculum time or priority.
- Far fewer children walk or cycle to school.
- Lifestyle of young people often based on more sedentary interests. Exercise means effort and commitment.

Any other valid points should be credited.

4 (a) For what reasons are many scientists and environmentalists concerned about air travel? (17 marks)

(a) Reasons for concern of scientists and environmentalists about air travel

- Carbon dioxide is the principal greenhouse gas causing global warming. Emissions from aircraft account for 2% of global total of CO₂ and are projected to reach 15% by 2050. (Air transport was exempted from the Kyoto protocol on climate change provided that airlines sought a way to reduce emissions through a trading scheme by 2007.) In 2000 carbon emissions from the UK aviation industry amounted to approx 8.8m tonnes.
- Flying also contributes to other undesirable emissions such as oxides of nitrogen and water vapour, causing the atmosphere to warm.
- Greenhouse gas emissions from aviation are growing faster than those of any other sector in the economy. Currently aviation accounts for 6% of UK emissions. British Airways projects that by 2050 it could be anywhere between 17% and 46%.
- 2003 Aviation White Paper envisaged aircraft passenger numbers rising from 180 million per year to 476 million per year by 2030 with five major new airport runways to accommodate the increased demand. (Heathrow, Glasgow, Manchester and Luton have ambitious plans.)
- Feeling that much of what politicians say about protecting the environment is rhetoric and that they are more interested in winning votes by protecting cheap flights and jobs.
- Heavy use of non-renewable fuel resources. Alternative bio-fuels (derived from plants, an alternative to oil-based fuels) have proved difficult to develop commercially. (Scientists do not think bioethanol is yet suitable and biodiesel, produced from plants such as rape seed, is supposed to be carbon neutral (carbon released when burnt should be absorbed from the atmosphere while the crops grow) but recent studies have shown that greenhouse gains are much smaller than once assumed.)
- Increased noise pollution as airports seek to expand to meet growing leisure and commercial demands.
- Links between air travel and terrorism. Particular fear that terrorists might seek to repeat 9/11, perhaps seeking to take over a plane and target a nuclear power station.

Any other valid points should be credited.

- (b) **Discuss the view that policies to discourage air travel are socially, economically, and politically unthinkable.** *(18 marks)*

(b) Discouraging air travel as socially, economically and politically unthinkable

- When muted, ‘climate taxes’ have proved unpopular especially among holidaymakers. Tabloids have produced scaremongering headlines and politicians fear the impact on votes and higher prices mean people on lower incomes will be disproportionately hit.
- Scale of the problem is massive. Flying is immensely popular in developed countries and the number of people jetting in and out of Britain each year is more than three times the national population, and the figure is rising steeply.
- Flying has annihilated distance and shrunk the world, facilitating global business and the easily-taken sunshine holiday/cheap package.
- Would be futile for one country to take action when the problem is worldwide. The world’s leading polluters (USA, China and India) are not even signatories of the main Kyoto agreement.
- Fear that aviation taxes/restrictions might have an adverse impact on industry and lead to loss of jobs.
- Politics is usually based on short-term policies, not least because most voters think mainly about themselves in the short-term.
- Aircraft industry increasingly argues that engines will become much more efficient and that salvation will also come through ETS (European Union’s Emission’s Trading Scheme).

Any other valid points should be credited.