

Intelligence and educational attainment

A2

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Last checked 6 October 2026

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What you need to know

By the end of this topic you should be able to:

1. **Explain why intelligence is hard to define:** sociologists and psychologists disagree on whether it is one general ability or many, whether it is inherited or learned, and whether it can be separated from the culture a person grows up in.
2. **Judge IQ tests:** how they work, and how far a person's score is shaped by **social factors** such as class, ethnicity, language, culture, health, practice and the setting of the test.
3. **Weigh intelligence as an influence on educational attainment:** how far "ability" explains who does well at school, compared with home background, school processes (labelling, streaming and setting) and wider inequality.

Ways of grouping pupils "by ability" (streaming, setting, selective schools) belong here because they rest on judgements of intelligence. Why particular classes, ethnic groups and genders achieve more or less is covered in more depth in the attainment notes; here that material is used to answer one question: is it intelligence, or something social, that decides results?

Understand it

What is intelligence?

In everyday speech intelligence means being "clever" or "quick". Turning that into something that can be measured raises problems.

- **One ability or many? Spearman** argued for a single **general intelligence** ("g") that shows up across every kind of task. **Gardner** argued for **multiple intelligences**: linguistic, logical-mathematical, spatial, musical, bodily-kinaesthetic, interpersonal (understanding others), intrapersonal (understanding yourself) and naturalistic. **Sternberg** split intelligence into analytical, creative and practical sides, and **Goleman** popularised **emotional intelligence**. If intelligence is many things, one score cannot capture it.

- **Fixed or changing?** Some see intelligence as an inborn capacity, fixed for life. Others see it as something that grows with experience, teaching and encouragement, so it can rise or fall.
- **Inherited or learned?** This is the **nature–nurture** debate (see below).
- **Whose definition?** What counts as "intelligent" reflects what a society values. Speed, abstract reasoning and a wide vocabulary are prized in Western schooling; other cultures may value wisdom, cooperation or practical skill. **Henderson** argued that the **middle class define intelligence**, so tests end up rewarding the skills that middle-class homes pass on to their children.
- **Circular definitions.** The psychologist **Boring** concluded that intelligence is simply whatever intelligence tests measure. Critics reply that this makes it impossible to check whether the tests measure anything real (a problem of **validity**).

Interactionists go further: intelligence is a **social construction**. A pupil becomes "bright" or "slow" through the judgements of teachers, tests and peers, not because of a fixed quality inside them.

IQ tests: how they work

Binet designed the first tests in France in the early 1900s to find children who needed extra help in school. A child's **mental age** was the age group whose typical performance they matched. **Stern** and **Terman** turned this into the **intelligence quotient (IQ)**:

$$\text{IQ} = \frac{\text{mental age}}{\text{chronological age}} \times 100$$

A 10-year-old who performs like a typical 12-year-old has an IQ of $\frac{12}{10} \times 100 = 120$. Modern tests instead compare a person with others of the same age: scores are set so the average is 100, and about two-thirds of people score between 85 and 115.

Tests typically include verbal reasoning (vocabulary, analogies), numerical reasoning, spatial puzzles and pattern completion, usually under time limits.

IQ-type tests have been used to **select and group** pupils: the **11-plus** exam that decided entry to grammar schools under the UK's tripartite system after 1944, the **SAT** used for US college entry, and tests that schools use to place pupils in streams or sets.

The nature–nurture debate

Hereditarians (nature) argue intelligence is mostly inherited.

- **Burt's** studies of identical twins raised apart claimed a very strong genetic effect and influenced the 11-plus. After his death his data were widely judged unreliable, possibly invented.
- **Jensen** claimed about 80% of the variation in IQ is genetic, and that compensatory education could do little to close gaps between groups. **Eysenck** made similar claims, and **Herrnstein and Murray** (*The Bell Curve*) argued that a society sorted by intelligence was emerging in the USA.
- **Smith-Woolley** and colleagues, using twin and DNA data on UK pupils, found that the better exam results of selective and private schools mostly disappeared once pupils' prior ability, family background and genetic differences were allowed for. Hereditarians use studies like this to argue that inherited ability, not

the school, explains much of the gap.

Environmentalists (nurture) argue scores reflect upbringing and opportunity.

- **Kamin** and **Gould** attacked the hereditarian studies' methods and showed how test results had been used to justify racial and class prejudice.
- The **Flynn effect**: **Flynn** found that average IQ scores in many countries rose by roughly 3 points every decade in the twentieth century. Genes cannot change that fast, so better nutrition, health, schooling and familiarity with test-style tasks must have raised scores.
- Children's scores change with their circumstances, as the studies of streaming and labelling below show.

Most sociologists accept that people differ in ability, but argue that **social factors decide how ability is developed, measured and rewarded**.

How social factors influence IQ scores

These are the main reasons a test can measure a pupil's background rather than their intelligence. Each is a ready-made point for a 4-, 8- or 12-mark answer.

1. **Cultural bias in language and assumed knowledge.** Questions use vocabulary, examples and ideas that are familiar to the white, middle-class groups who wrote them. A child who has never met a word or an object can get the item wrong without lacking reasoning ability. **Bernstein's** idea of the **elaborated code** (explicit, formal speech used in school and tests) and **restricted code** (shorter, context-bound speech common in working-class homes) explains why middle-class children find test language easier. **Bourdieu** adds that middle-class **cultural capital** (knowledge, tastes and ways of speaking the education system values) is rewarded as if it were natural ability.
2. **Different ideas about what matters in a test.** **Klineberg** studied Yakima children (a Native American group in the USA). In Yakima culture a task is done carefully and without hurry, and racing to finish is not admired. On timed puzzles the children therefore took their time and lost marks, even when their answers were right. The test assumed that every child would treat speed as part of doing well.
3. **Unequal preparation and practice.** Scores rise with practice. Middle-class families are more likely to pay for tutoring or practice papers (for the 11-plus, for example) and to own puzzle books and educational games, so their children know the format. The test then rewards familiarity, which money buys.
4. **Conditions during the test.** Hunger, illness, tiredness, anxiety and low motivation lower scores. These are more common among children living in poverty (**material deprivation**). **Hubbs-Tait** and colleagues reviewed evidence that poor diet and exposure to pollutants such as lead, more common in poor areas, harm children's cognitive development.
5. **The setting and the tester.** **Labov** showed that Black American children who said little in a formal interview with an unfamiliar adult spoke fluently and argued logically in a relaxed setting with a familiar tester. **Steele and Aronson** found that Black students did worse on a hard test when it was presented as a test of intellectual ability than when it was not, because of anxiety about confirming a negative stereotype (**stereotype threat**).

6. **The problem of definition.** If nobody agrees what intelligence is, nobody can be sure what a test measures. A test may measure the ability to do tests, not intelligence, and a single number ignores Gardner's other intelligences.
7. **Intelligence is not fixed.** A test is a snapshot. Children develop at different rates, and scores change with schooling, stream and labelling (Douglas, Rosenthal and Jacobson, below), so a score at age 7 or 11 is a poor guide to later potential.
8. **Individual, not social, explanations.** IQ tests locate success and failure inside the child. This hides the social causes of underachievement, such as poverty, labelling and school resources.

Marxists add a further point: **Bowles and Gintis** found that family background predicted adult success better than IQ, and argued that belief in IQ (they called it **IQism**) **legitimises** inequality. If working-class pupils are told they failed because they are less intelligent, they accept their lower position as fair.

Intelligence as an influence on attainment

The case that intelligence matters most comes from **functionalists**, the **New Right** and hereditarians.

- **Meritocracy: Davis and Moore** argue education sifts and sorts pupils by ability so that the most able fill the most important jobs. If opportunity is equal, results should reflect intelligence plus effort.
- **Saunders** argued from a large cohort study that a child's measured ability and effort predicted their adult class better than their parents' class did.
- IQ scores do correlate with exam results and later qualifications, so tests have **predictive** value, which is why they have been used for selection (11-plus, SAT).
- Twin and DNA studies (Smith-Woolley) suggest attainment is partly heritable.
- Gardner's multiple intelligences can support the view in a different way: pupils succeed in subjects that match their strongest kind of intelligence.

The case that social factors matter more:

- **Class gaps open early.** **Feinstein** found that children from poor homes who scored highly on tests as toddlers were overtaken by about age 10 by lower-scoring children from better-off homes. **Douglas** found that, among children of similar measured ability, middle-class pupils did better and stayed in school longer, and linked this to parental interest. Government statistics in England (for example from the DfE) and the **Youth Cohort Study** show pupils from poorer homes doing worse on average at every stage.
- **Material deprivation:** poor housing, diet and the hidden costs of school limit attainment whatever a child's ability. **Mortimore and Whitty** argued that schools alone cannot make up for disadvantage at home.
- **Cultural factors:** Bernstein's codes, **Sullivan's** finding that pupils with more cultural capital (reading, cultural activities) did better in exams, and Bourdieu's cultural capital explain results without any reference to intelligence.
- **Motivation and effort:** **Murayama** and colleagues found that growth in pupils' maths achievement over several years was predicted by their motivation and study strategies, not by their intelligence.
- **School processes:** labelling, streaming and setting change both results and measured intelligence (next section).

- **Gender:** girls now outperform boys in most countries, though there is no evidence that girls' intelligence changed. Social change (jobs, aspirations, feminism) explains the shift better.

Labelling, ability grouping and the self-fulfilling prophecy

Schools make judgements about pupils' "ability" all the time, and these judgements can shape attainment.

Labelling. **Becker** found that teachers judged pupils against an **ideal pupil**, usually one with middle-class speech, dress and manners. Pupils far from the ideal were seen as less able. A **label** can lead to a **self-fulfilling prophecy**:

1. the teacher labels a pupil (for example as "bright" or "slow");
2. the teacher treats the pupil according to the label (more praise and attention, or less);
3. the pupil comes to see themselves that way (their **self-concept**) and works harder or gives up, so the prediction comes true.

Rosenthal and Jacobson gave pupils in a US primary school an IQ test, then told teachers that about one in five, actually picked at random, were "spurters" who would make rapid progress. A year later those pupils' IQ scores had risen more than the others', especially among the youngest. Teachers' expectations alone appeared to change measured intelligence.

Ways of grouping by ability:

- **streaming:** placing pupils in one class by general ability for all subjects;
- **setting:** grouping by ability separately in each subject;
- **selective schools:** separate schools by tested ability, such as grammar schools after the 11-plus;
- **mixed ability** teaching: no grouping.

How labelling and grouping can disadvantage pupils:

- **Stereotyped placement.** Placement often reflects teachers' views of class, ethnicity and gender as much as ability. **Gillborn and Youdell** studied two London secondary schools. Teachers' views of who had "ability" followed class and ethnic lines: Black Caribbean and working-class pupils were more often expected to misbehave and judged to lack potential, so they ended up in bottom sets, where they received little of the teaching effort; they called the belief that ability is fixed and measurable the **new IQism**. They also described **educational triage**: under league-table pressure, schools concentrated on borderline pupils and neglected those labelled hopeless.
- **Lower expectations and a narrower curriculum.** **Keddie** found teachers gave lower streams simpler, practical knowledge and withheld the abstract knowledge that exams reward. Lower sets may be entered for **lower-tier exams**, which cap the grades pupils can reach.
- **Fewer resources.** Lower groups often get less experienced teachers and less teacher time.
- **Measured ability itself changes.** **Douglas** found that the measured ability of pupils in upper streams tended to rise over time, while that of similar pupils placed in lower streams fell.

- **Anti-school subcultures.** **Hargreaves** and **Lacey** found that pupils in low streams, denied status by the school, formed subcultures that gained status by rejecting school values (truanting, messing about). **Ball** found the same in lower bands of a comprehensive school. **Mac an Ghail** found that pupils who were negatively labelled often responded with hostility, and that teachers then concentrated on controlling them rather than teaching them.
- **Discipline and exclusion.** Pupils labelled as troublesome are watched more closely and punished more, so they are more often excluded, especially Black Caribbean boys (**Gillborn, Sewell**).
- **Gender stereotypes.** Teachers may steer girls and boys towards "suitable" subjects and careers, limiting their options.
- **Teacher–pupil relationships.** Positive labels bring warmth, praise and help; negative labels bring criticism and distance, which lower confidence and effort.
- **Mixed-ability evidence.** **Boaler** compared maths teaching in a school that used mixed-ability classes with one that used sets. Pupils of similar ability, especially working-class pupils, reached better GCSE maths grades in the mixed-ability school; in the setted school, low sets brought anxiety and low expectations.

Labels do not always work. **Fuller** found that Black girls labelled as less able worked harder to prove teachers wrong (rejecting the label), and pupils can negotiate or resist. This is useful for evaluation.

Key facts and formulas

There is no formula list in Sociology. "Learn it" means you must remember it.

Key term	Status
$IQ = \frac{\text{mental age}}{\text{chronological age}} \times 100$ (Stern, Terman); modern tests set the average at 100, about two-thirds score 85 to 115	Learn it
Defining intelligence: general intelligence "g" (Spearman); multiple intelligences (Gardner); analytical, creative, practical (Sternberg); emotional intelligence (Goleman); "what intelligence tests measure" (Boring); middle class define intelligence (Henderson)	Learn it
Nature: Burt (twins, data discredited), Jensen (80% genetic), Eysenck, Herrnstein and Murray, Smith-Woolley (twin and DNA data)	Learn it
Nurture: Kamin and Gould (critics of hereditarians), Flynn effect (scores up about 3 points a decade)	Learn it
Social factors in IQ tests: cultural bias (Bernstein's codes, Bourdieu's cultural capital), Klineberg (Yakima children and speed), preparation and practice, test conditions (Hubbs-Tait), setting (Labov), stereotype threat (Steele and Aronson)	Learn it
Bowles and Gintis: family background predicts success better than IQ; IQism legitimises inequality	Learn it

Key term	Status
Attainment: Davis and Moore and Saunders (meritocracy); Feinstein, Douglas, Youth Cohort Study, Mortimore and Whitty, Sullivan, Murayama (social factors and motivation)	Learn it
Labelling: ideal pupil (Becker), self-fulfilling prophecy, Rosenthal and Jacobson (spurters), Mac an Ghaill (hostility to labels), Fuller (rejecting labels)	Learn it
Ability grouping: streaming, setting, selective schools, mixed ability; Gillborn and Youdell (new IQism, educational triage), Keddie, Hargreaves, Lacey, Ball, Douglas, Boaler	Learn it
Paper 3: Question 1 $2 \times 2 = 4$; Question 2 $2 \times 4 = 8$; Question 3 $2 \times 6 = 12$; Question 4 essay 26	Learn it

How to do it

We have tagged 14 questions for this topic (2021–2025, all from Paper 3), 13 different (Paper 31 repeated Paper 33 in November 2024). None mix two types.

Question type	Questions
Explain two reasons or ways (8 marks)	5
Describe two problems or limitations (4 marks)	4
Give two arguments against a stated view (12 marks)	4
Evaluate a view about intelligence and attainment (26-mark essay)	1

1. Explain two reasons or ways (8 marks) (5 questions)

Always Question 2. Asked (counting tagged questions): why IQ tests may not accurately measure ability, or why performance in them is influenced by social factors (2); how labelling, or negative labelling by teachers, affects pupils (2); why ability grouping can disadvantage some children (1).

Each reason is marked out of 4, and the marks are points-based, not levels:

- Point** (1): name the reason in one sentence, for example "IQ tests are culturally biased".
- Explain** (1): say how it works, for example "questions use vocabulary and knowledge that middle-class children meet at home, so they score higher whatever their ability".
- Material** (1): name a study, sociologist, concept or theory that supports it, for example Klineberg.
- Link** (1): explain **how** that material supports the point, for example "a timed test assumes every child tries to finish fast; Yakima children were brought up to work slowly and carefully, so their scores reflected a cultural habit, not their reasoning".

Write two separate paragraphs, each with all four parts. A reason without named material stops at 2 marks.

Ready-made reasons, each with material:

- **Why IQ scores are shaped by social factors (or are inaccurate):** intelligence defined by the middle class (Henderson); cultural bias in language (Bernstein); assumed knowledge (Bourdieu's cultural capital); cultural differences in how seriously or how fast a test is done (Klineberg); unequal preparation and practice (tutoring for the 11-plus); conditions during the test such as poverty, hunger, health and anxiety (Hubbs-Tait, stereotype threat from Steele and Aronson); the setting and tester (Labov); doubts about a single general intelligence (Gardner); intelligence not fixed (Flynn effect, Douglas); whole groups' results improving through social change, such as girls (no change in intelligence); the dominant class justifying its own success (Bowles and Gintis).
- **How labelling affects pupils:** teacher–pupil relationships (Becker's ideal pupil); self-concept and the self-fulfilling prophecy (Rosenthal and Jacobson); anti-school subcultures (Hargreaves, Lacey, Mac an Ghaill); placement in lower sets with less access to the curriculum and higher-tier exams (Gillborn and Youdell, Keddie); class or ethnic stereotypes in expectations (Gillborn and Youdell); gender stereotypes in subject choice; more discipline and exclusion (Gillborn, Sewell); or pupils rejecting the label and working harder (Fuller).
- **Why ability grouping disadvantages some children:** stereotyped placement by class, ethnicity or gender (Gillborn and Youdell); fewer resources and less experienced teachers for lower groups; lower teacher expectations and simpler knowledge (Keddie); labelling and the self-fulfilling prophecy affecting identity and effort (Rosenthal and Jacobson, Douglas); anti-school subcultures in lower streams (Hargreaves, Lacey, Ball); lower grades than in mixed-ability classes (Boaler).

2. Describe two problems or limitations (4 marks) (4 questions)

Always Question 1. Asked: two problems in measuring intelligence, or in using IQ tests to measure educational ability (3, including one repeat); two limitations of IQ tests as a measure of intelligence (1).

1. Write two bullet points.
2. For each: **name** the problem (1), then one sentence on **why** it makes the test inaccurate (1).
3. No introduction and no theorist needed.

Problems to choose from: intelligence is hard to define, so it is unclear what is being tested; cultural bias in language or assumed knowledge; scores depend on practice and coaching; conditions such as poverty, health, anxiety or motivation affect performance; cultural differences in how the test is seen; general intelligence is questionable (multiple intelligences, different abilities in different subjects); intelligence is not fixed over time; many factors contribute to intelligence.

3. Give two arguments against a stated view (12 marks) (4 questions)

Always Question 3. Views quoted (counting tagged questions): IQ tests are a fair measure, a good indicator or an accurate measure of educational ability or potential (3); grouping by ability gives all pupils the most suitable education (1).

Each argument is marked separately out of 6 by levels: 1–2 for a bare point, 3–4 for a clear point whose material is not fully linked, 5–6 for a clear, developed argument supported by concepts, theory or evidence, with its relevance stated.

1. Write **two** separate paragraphs ("The first argument against this view...", "A second argument...").
2. Make each a **different**, broad argument (for example "cultural bias" or "intelligence is not fixed"), not a list of small points.
3. Back each with named material and explain how it works.
4. End each with a sentence on why this undermines the view, using its words ("so IQ tests are not a **fair** measure of **educational ability**").
5. Write nothing in support of the view and no introduction defining IQ: neither earns marks.

Ready-made arguments:

- **Against "IQ tests are a fair (good, accurate) measure of educational ability or potential"**: cultural bias in language or assumed knowledge (Bernstein, Bourdieu, Henderson); cultural differences in how the test is seen (Klineberg); unequal preparation and coaching for middle-class pupils; conditions affecting performance, such as poverty and health (Hubbs-Tait, Steele and Aronson); problems defining intelligence and what is being tested (Boring); the existence of multiple intelligences, which one score ignores (Gardner); tests are a snapshot and people develop at different rates (Flynn, Douglas, Rosenthal and Jacobson); educational ability also depends on personal factors such as motivation and resilience (Murayama); and the focus on the individual hides social causes of achievement (Bowles and Gintis on IQism).
- **Against "grouping by ability gives all pupils the most suitable education"**: the tests used to group pupils (IQ, 11-plus, entrance tests) may not be a valid measure of potential; perceived ability rests on stereotypes of class, gender or ethnicity and the ideal pupil (Becker, Gillborn and Youdell); lower groups suffer lower self-esteem, fewer resources, simpler knowledge and different treatment by teachers (Keddie, Douglas); streaming can lead to anti-school subcultures (Hargreaves, Lacey, Ball); and mixed-ability teaching has social and educational benefits for all pupils (Boaler).

4. Evaluate a view about intelligence and attainment (26-mark essay) (1 question)

Question 4, asked once on this topic: whether intelligence is the main factor influencing educational achievement.

That 2021 essay was marked on one scheme of five levels (top level 22–26); later essays (from June 2022) are marked **AO1** knowledge and understanding 10, **AO2** interpretation and application 6, **AO3** analysis and evaluation 10, so $10 + 6 + 10 = 26$. Both reward the same things.

1. **Introduction** (two or three sentences): define intelligence and show it is contested; name the view's source (functionalists, New Right and hereditarians say intelligence matters most; Marxists, interactionists and deprivation theorists say social factors do).
2. **For the view** (4–5 paragraphs): intelligence as a general capacity to learn and achieve; IQ tests predict educational success; meritocracy (Davis and Moore, Saunders): with equal opportunity, intelligence decides results; twin and DNA evidence (Smith-Woolley); evidence on different kinds of intelligence (Gardner) explaining success in different subjects; tests used for selection (11-plus, SAT) because they predict results.

3. **Against the view** (4–5 paragraphs), each written as a criticism: intelligence is hard to define and measure; IQ changes with class background (Feinstein, Douglas, Flynn); IQ changes with stream and school (Douglas, Rosenthal and Jacobson); material deprivation (Mortimore and Whitty, Hubbs-Tait, DfE statistics, Youth Cohort Study); cultural deprivation and cultural capital (Bernstein, Bourdieu, Sullivan); labelling and resource allocation inside schools (Gillborn and Youdell, Becker); motivation and effort (Murayama); structural barriers to equal opportunity, and Bowles and Gintis on IQism legitimising failure; gender and ethnic patterns (girls' rise, Archer and Epstein on how class, gender and ethnic identities shape pupils' responses to school) that intelligence cannot explain.
4. **Conclusion**: a reasoned judgement on **how far** the view holds. A strong conclusion: ability matters, but how it is defined, measured, developed and rewarded is social, so intelligence alone is rarely the **main** factor.

Evaluation moves that lift the mark:

- Turn the evidence round: IQ scores predict results, but if both reflect class background, the link shows the effect of class, not of intelligence.
- Question the measure: if intelligence cannot be agreed or measured fairly, claims that it is the main factor cannot be tested.
- Attack the hereditarian evidence: Burt's data, the speed of the Flynn effect, the difficulty of separating genes from environment in twin studies.
- Show that labelling makes "intelligence" partly a **product** of schooling, not only a cause of results.
- Say the view fits some places and times better than others: where schooling is free and selection fair, ability may matter more; where poverty keeps children out of school, it matters far less.

Worked examples

Example 1

Describe two problems in defining intelligence. [4]

- **One ability or many (1)**: some argue for a single general intelligence while Gardner argues for several separate intelligences, so a test built on one view will miss abilities counted by the other (1).
- **Cultural differences (1)**: what counts as intelligent behaviour (speed, abstract reasoning, practical wisdom) differs between cultures and classes, so any definition reflects the values of the group that writes it (1).

Two problems, each named and described: **4 marks**.

Example 2

Explain two reasons why pupils from some ethnic minority groups may score lower than other pupils in IQ tests. [8]

Reason 1. IQ tests can be culturally biased (1). Questions are written by members of the majority culture and use vocabulary, examples and ways of thinking that are familiar to them, so pupils from other cultures can get items wrong without lacking reasoning ability (1). Klineberg's study of Yakima children in the USA supports this (1): Yakima culture prizes unhurried, careful work, while the timed test rewarded speed, so the children's low scores showed a clash of values rather than a lack of intelligence (1).

Reason 2. The situation of the test can affect performance (1). Pupils who expect to be judged negatively may become anxious, which lowers their score on the day whatever their ability (1). Steele and Aronson's research on stereotype threat supports this (1): Black students did worse on a difficult test when told it measured intellectual ability than when it was presented as a problem-solving exercise that did not measure ability, showing that fear of confirming a stereotype, not lower intelligence, reduced their scores (1).

Each reason has a point, an explanation, named material and a link: $2 \times 4 = 8$ marks.

Example 3

'Pupils are placed in different sets because of differences in their intelligence.'

Using sociological material, give two arguments against this view. [12]

Argument 1. The first argument against this view is that placement in sets often reflects teachers' stereotypes rather than intelligence. Interactionists such as Becker found that teachers judge pupils against an ideal pupil who is usually middle class. Gillborn and Youdell's research in London showed that teachers' judgements of "ability" followed class and ethnic lines, so Black Caribbean and working-class pupils were sent to bottom sets more often than white middle-class pupils with similar results. If pupils of the same ability end up in different sets because of their class or ethnicity, then sets are not based on differences in intelligence. **Level 3 (5–6 marks).**

Argument 2. A second argument is that the measures used to decide sets do not measure intelligence fairly. Setting is often based on tests or previous results, but these reflect cultural capital and preparation: Bourdieu argues that middle-class children arrive with the language and knowledge schools reward, and Bernstein showed that the elaborated code used in tests is more familiar in middle-class homes. Douglas also found that pupils' measured ability rose in higher streams and fell in lower ones, so "intelligence" partly results from the set rather than causing it. Placement therefore reflects social background and the effects of earlier grouping, not intelligence alone. **Level 3 (5–6 marks).**

Two clear, developed arguments, each with named material and a closing link to the view: **12 marks.**

Example 4

Evaluate the view that IQ tests are a fair basis for selecting pupils for different schools. [26]

Introduction. Selection by IQ-type tests, such as the 11-plus for grammar schools, assumes intelligence is a fixed, measurable ability that predicts success. Functionalists and the New Right support this as meritocratic; Marxists and interactionists argue the tests measure social background.

For the view (AO1/AO2).

- **Meritocracy:** Davis and Moore argue that sorting pupils by ability lets the most able be trained for the most important roles; a test applied to everyone judges all by the same standard.
- **Prediction:** IQ scores correlate with later exam results, so selection by test sends pupils to schools suited to their likely attainment.
- **Fairer than the alternatives:** a test is more objective than selection by fees, connections or teachers' opinions, which allow class bias in openly.
- **Heritability:** Smith-Woolley's twin and DNA evidence suggests ability is partly inherited, so tests pick up real differences.

Against the view (AO3).

- **However**, tests are culturally biased: Bernstein's codes and Bourdieu's cultural capital mean middle-class pupils find the language familiar, so the "objective" standard favours one class.
- **Preparation can be bought:** tutoring and practice papers raise scores, so wealthier families gain places, which is selection by money, not intelligence.
- **Intelligence is not fixed:** the Flynn effect and Douglas's evidence that measured ability changes with stream show that a test at 11 is a snapshot; late developers are wrongly shut out.
- **Selection becomes a self-fulfilling prophecy:** pupils labelled as failures at 11 receive lower expectations and fewer resources (Keddie, Rosenthal and Jacobson), so the test seems to predict results it helped to cause.
- **Marxists** (Bowles and Gintis) argue that selection by IQ legitimises class inequality, making working-class failure look deserved.

Conclusion. IQ tests are more consistent than selection by wealth or opinion, and they do predict results. But because scores are shaped by culture, coaching, health and earlier labelling, the prediction partly reflects class background. Tests are fair in their **rules** but not in their **effects**, so the view holds only weakly, and least of all where tutoring is widespread.

How it would be marked. A wide range of detailed points with sociologists and concepts (AO1 9–10), applied throughout to "fair" and "selecting" (AO2 5–6), and each counter-argument weighed to reach a justified conclusion (AO3 9–10). In the exam, make each bullet a full paragraph.

Common mistakes

- **Drifting from IQ tests to attainment in general.** Examiners report many answers that explain why working-class pupils underachieve without ever saying how this affects **test scores**. Studies of social factors in general attainment, with no link to the tests, stay in Level 1. Keep the words "IQ test" or "score" in every argument.
- **No sociological material in Question 2.** A clear reason with a good explanation still earns only 2 of its 4 marks without a named study, concept or theory and a sentence linking it. Points such as "illness on the day" are relevant but hard to support with material; choose reasons you can back with a study.
- **Arguments not developed into Level 3.** In Question 3 many candidates explain each point well enough for 3–4 marks but stop there. Add material and say how it undermines the view.

- **Unnecessary introductions.** A paragraph defining IQ, or listing the types of ability grouping, earns nothing in Questions 2 and 3. Start with your first reason or argument.
- **Describing instead of answering.** Long accounts of the tripartite system or of IQ testing, or a description of how labelling happens, earn little unless applied: say what the **effect** on pupils or on the fairness of the test is.
- **Losing the link to grouping.** In a question on ability grouping, an answer about labelling in general scores nothing; tie each point to streams, sets or selective schools.
- **One-sided essays.** In the 2021 essay many candidates ignored the arguments that intelligence **does** matter. Give the view a fair hearing before criticising it, and weigh the two sides rather than placing them next to each other.
- **Arguing for the view in Question 3.** Only arguments against are credited.

How to get the marks

- **"Describe two..." (4 marks):** two bullet points, each named and described in one sentence. No introduction, no theorist needed.
- **"Explain two..." (8 marks):** for each reason, **point, explain, material, link**: four separate marks. The material can be a study, a sociologist, a concept or a theory, but you must say how it supports the point.
- **"Using sociological material, give two arguments against this view" (12 marks):** two separate, developed arguments, each with named material and a closing sentence on why it weakens the quoted view. Arguments can attack the view's **logic or evidence** as well as offer a rival view.
- **"Evaluate..." (26 marks):** AO1 10 for a wide range of detailed points with concepts and research; AO2 6 for applying them to the exact wording (intelligence, IQ tests, the **main** factor); AO3 10 for explicit, sustained evaluation and a justified conclusion. A good account of the other side with no weighing stops at the 7–8 band for AO3.
- **Sociological material** for this topic: Gardner, Klineberg, Bernstein, Bourdieu, Henderson, Labov, Steele and Aronson, Flynn, Douglas, Feinstein, Rosenthal and Jacobson, Becker, Gillborn and Youdell, Keddie, Hargreaves, Mac an Ghaill, Boaler, Bowles and Gintis, Saunders, Smith-Woolley; concepts such as cultural bias, cultural capital, self-fulfilling prophecy, meritocracy and the new IQism.
- **Use examples from your own society:** entrance tests, tutoring, or how pupils are grouped where you live are credited when they are relevant.

Quick check

1. A 12-year-old performs like a typical 9-year-old on an intelligence test. Using the original formula, what is their IQ?
2. Name two of Gardner's multiple intelligences, and say why the theory is a problem for IQ tests.
3. What did Rosenthal and Jacobson tell teachers, and what happened?
4. What is the Flynn effect, and why does it weaken the view that intelligence is mainly inherited?

5. Which sociologist is linked to each idea? (a) Yakima children and speed. (b) The new IQism and educational triage. (c) Fluent speech in a relaxed setting. (d) Lower maths grades in sets than in mixed-ability classes.

Answers

1. $\text{IQ} = \frac{9}{12} \times 100 = 75$.
2. Any two of linguistic, logical-mathematical, spatial, musical, bodily-kinaesthetic, interpersonal, intrapersonal, naturalistic. If intelligence has several separate forms, a single IQ score (which mostly tests verbal, numerical and spatial reasoning) misses many of them, so it cannot measure a person's intelligence as a whole.
3. They told teachers that about one in five pupils, picked at random, were "spurters" who would make rapid progress. A year later those pupils' IQ scores had risen more than others', suggesting teacher expectations (a self-fulfilling prophecy) changed measured intelligence.
4. Average IQ scores rose by roughly 3 points a decade in many countries during the twentieth century. Genes cannot change that fast, so environmental factors (nutrition, schooling, familiarity with tests) must explain the rise, and so can affect intelligence scores a great deal.
5. (a) Klineberg. (b) Gillborn and Youdell. (c) Labov. (d) Boaler.

Past questions to try

- **9699/32/F/M/24 Q1**: describe two problems in measuring intelligence.
- **9699/31/M/J/22 Q3**: two arguments against IQ tests being a good indicator of educational ability.
- **9699/32/F/M/23 Q2**: explain two reasons why ability grouping can disadvantage some children.
- **9699/33/M/J/21 Q3**: two arguments against grouping by ability giving all pupils the most suitable education.