

Read carefully. Reason better.

Practice for ICAS Paper G · International schools, Singapore & Malaysia

Name

School

Year

Sitting date

What this booklet is for.

A short, focused warm-up for ICAS Paper G. Fifteen verbatim past-paper items lifted from the 2018 paper — four English, six Maths, five Science. Work through them at your own pace, mark yourself with the answer key at the back, and notice where you're strong and where you need another look.

Why ICAS matters at your year level.

- ▶ ICAS Distinctions and High Distinctions at Paper G level carry weight in scholarship applications, school transfers, and early academic profile-building for IGCSE / IB / SPM.
- ▶ Year 9 is the level where the gap between Credit and Distinction is almost entirely about reading speed and elimination strategy — not about who knows more.
- ▶ Paper G is your first chance to sit a paper that mirrors the cognitive style of secondary external assessments. Treat it as a free dress rehearsal.

Strategy first, content second.

At Paper G level, the difference between a Credit and a Distinction is rarely about what you know — it's about how you read and how you eliminate. The strategies in this booklet matter more than any single content area you can revise.

You'll sit ICAS online.

ICAS is delivered online on a school device or BYOD. As well as standard 4- and 5-option multiple choice, you may see: **Textspot** (click words in a sentence), **Graphic Hotspot** (click a point on an image), **Drag & Drop, Matching** (sort, tick, or draw lines), **Sequencing** (order items), and **Keyword** (type a number or word into a box — this is how the integer-response items are collected online). Read the instruction line on every question — some ask you to select more than one answer.

Self-assessment.

Before you start the practice, take a minute and rate your confidence with each skill below. After you finish, come back and rate yourself again. The gap between the two ratings tells you where the booklet helped — and where you need more work outside it.

Skill	Shaky	OK	Good	Strong
Inferring tone and writer purpose in unfamiliar passages	☐	☐	☐	☐
Vocabulary in context — confident with unfamiliar adjectives and verbs	☐	☐	☐	☐
Percentages, percentage change, ratios in word problems	☐	☐	☐	☐
Algebraic substitution and formula manipulation	☐	☐	☐	☐
Reading and interpreting tables in unfamiliar science scenarios	☐	☐	☐	☐
Spotting where data does and does not support a claim	☐	☐	☐	☐

How to use this honestly.

There's no point lying to yourself on a self-assessment. Mark "Shaky" if a topic genuinely worries you — that's where extra time will pay off. Confidence isn't the goal; accurate self-awareness is.

ENGLISH · PAPER G

Read closely.

Read the passage. Then on the next page answer the four questions.

Diary from Mars.

Today is a landmark day in history — humans have finally colonised Mars. The time of our arrival was chosen to honour the ancient Babylonians who named Tuesday and March after the blood-red planet. All the pioneer pilgrims were greatly excited as we transferred from the ship Mayflower to Mars Base M57398, located in an extinct water channel. Water exists only at the poles now, and regular expeditions are planned to harvest it. The landscape is desolate and forbidding — just like the Atacama Desert in Chile where we trained.

We sat for hours through a boring orientation, as if we were ignorant dummies, and as if they didn't know that we are experienced professionals who had passed rigorous selection tests. Undeterred, on and on they rattled, warning us to be vigilant, and to wear our Marsuits to protect ourselves against the ultra-freezing temperatures, the poisonous 96% CO₂ atmosphere, and the solar radiation that bombards an atmosphere that is sixty times thinner than home.

More warnings followed about the dangers of solo exploration, and about not jumping too much as the gravity is only one-third that of Earth's. We obviously aren't allowed to play. Thank goodness we can dispense with the cumbersome suits once we're inside our pods, which are fitted with the latest sonic showers, ultra-comfortable space hammocks suspended in mid-air and every 'mod con' imaginable. There are even portholes so we can view Earth through telescopes at night. Our home planet sits like a bright blue marble against a black background pinpricked with stars.

ENGLISH QUESTIONS · PAPER G

English — four questions.

Refer back to the passage as often as you need. The right answer is always supported by something specific in the text.

Q1 · Paper G · Q1 · Vocabulary in context

What does the word 'forbidding' mean?

- (A) deceptive
- (B) isolated
- (C) devastated
- (D) ominous

Q2 · Paper G · Q2 · Text comprehension – Mood

Which word best captures the overall mood of the opening paragraph?

- (A) boastful
- (B) triumphant
- (C) nostalgic
- (D) dignified

Q3 · Paper G · Q3 · Text comprehension – Inference

The narrator found the orientation boring because he thought that it was prolonged and

- (A) the content was already familiar.
- (B) the warnings were too extreme.
- (C) the presenters weren't experienced professionals.
- (D) the presenters did not know about the selection tests.

Q4 · Paper G · Q7 · Syntax – Connectives (standalone)

'The next ship is in late June.' Which option could be correctly inserted at the beginning of this sentence to link it to a preceding sentence that introduced a problem?

- (A) Furthermore,
- (B) However,
- (C) Consequently,
- (D) Otherwise,

MATHEMATICS · PAPER G

Maths — first set.

Three questions from the front and middle of the paper. Work in the margins.

Q5 · Paper G · Q2 · Number & Arithmetic – Fractions

June's mother used this recipe to make some cookies. RECIPE FOR 12 COOKIES: 150 g butter, $\frac{3}{4}$ cup sugar, $2\frac{1}{4}$ cups flour, 1 egg.

She used 3 cups of sugar altogether. How many cookies did she make?

- (A) 18
- (B) 27
- (C) 36
- (D) 48

Q6 · Paper G · Q7 · Measures & Units – Time

Each lesson at Mayfield High School is of the same duration. The first lesson starts at 9:00 am and the last lesson finishes at 3:00 pm. The Monday timetable is: Lesson 1 English; Lesson 2 Maths; Recess (15 min); Lesson 3 Geography; Lesson 4 Science; Lunch (45 min); Lesson 5 Sport; Lesson 6 French.

What is the duration of each lesson?

- (A) 45 minutes
- (B) 50 minutes
- (C) 60 minutes
- (D) 70 minutes

Q7 · Paper G · Q13 · Number & Arithmetic – Fractions

At a school camp, $\frac{2}{5}$ of the activities involve climbing and $\frac{3}{10}$ of those climbing activities use ropes. What fraction of the activities involve climbing but do NOT use ropes?

- (A) $\frac{7}{25}$
- (B) $\frac{7}{50}$
- (C) $\frac{7}{10}$
- (D) $\frac{4}{25}$

MATHEMATICS — CHALLENGE · PAPER G

Maths — back half.

Harder items. These reward careful working — not flair.

Q8 · Paper G · Q18 · Number & Arithmetic — Percentage

Nina was given a set of crystal glasses valued at \$800 on her 16th birthday. On her 17th birthday, their value had increased by 3%. Nina had the set revalued on her 18th birthday and found that their value had increased to \$852.84. By what percentage had the value of the glasses increased from Nina's 17th birthday to her 18th birthday?

- (A) 3.2%
- (B) 3.4%
- (C) 3.5%
- (D) 3.6%

Q9 · Paper G · Q23 · Reasoning — Rates

A dog and a rabbit are 6 metres apart. The dog then chases the rabbit. In the time that it takes the dog to run 4 m, the rabbit moves 3 m. How far has the dog run by the time it catches up with the rabbit?

- (A) 12 m
- (B) 18 m
- (C) 24 m
- (D) 30 m

Q10 · Paper G · Q37 · Number & Arithmetic — Rates · Integer response

Tom is in a boat on a lake and Jen is standing on the jetty beside him. Tom travels in a straight path at 5 m/s. Jen walks in the opposite direction at 5 km/h. How many metres apart are they after 18 seconds?

Answer: _____ (*integer*)

SCIENCE · PAPER G

Science — first set.

ICAS Science is not a content test. Read the scenarios carefully.

Q11 · Paper G · Q2 · Predicting & Concluding – Life Science

The table summarises tasks done by different parts of the human brain: frontal lobe (planning, reasoning, problem solving, motor functions); parietal lobe (recognising sensation, time and space); temporal lobe (understanding, language, memory, learning); occipital lobe (vision and integrating visual information); cerebellum (balance, muscular coordination); brain stem (regulation of heartbeats, respiration, body temperature).

John suffered a head injury in an accident. He now has trouble recognising shapes. Which part of his brain is most likely to have been injured in the accident?

- (A) parietal lobe
- (B) temporal lobe
- (C) occipital lobe
- (D) cerebellum

Q12 · Paper G · Q3 · Interpreting – Life Science

An adaptation is a genetic change in a species over a long period of time. It makes the organisms within the species better suited to survive in their environment. Adaptations can be structural or behavioural. Which of these is an example of a behavioural adaptation?

- (A) Succulent plants grow thick leaves.
- (B) Some desert flowers open at night time.
- (C) Birds have bones that are hollow and lightweight.
- (D) Polar bears have a thick layer of fat under their skin.

Q13 · Paper G · Q10 · Predicting & Concluding – Inference

Alan grows agapanthus plants in his garden. He reads that they can grow well even in poor soil and with congested roots. He noticed that they grow more flowers if he removes the dead flowers. Which of the following can be inferred from the information given?

- (A) Alan's agapanthus plants are growing in poor soil.
- (B) Alan's agapanthus plants have congested roots.
- (C) Alan's agapanthus plants are growing in pots.
- (D) Alan's agapanthus plants produce flowers.

SCIENCE — CHALLENGE · PAPER G

Science — reasoning.

The harder Science items reward careful interpretation of data. Slow down on the table-reading.

Q14 · Paper G · Q5 · Observing & Measuring – Accuracy

Three students each took five measurements of the length of the same metal bar (true length 24.0 cm). Student A's results were close together but consistently 1 cm short. Student B's results were spread between 22 cm and 26 cm but averaged 24.0 cm. Student C's results were close together and clustered tightly around 24.0 cm. Whose measurements are both accurate AND precise?

- (A) Student A only
- (B) Student B only
- (C) Student C only
- (D) Students A and C only

Q15 · Paper G · Q18 · Investigating – Controls

A scientist wants to test whether a new fertiliser improves tomato yield. She grows 100 tomato plants with the fertiliser and records the yield. What additional group does she need to make her investigation valid?

- (A) 100 plants given a different fertiliser
- (B) 100 plants given twice the fertiliser
- (C) 100 plants given no fertiliser
- (D) 100 plants of a different variety

What earns marks on the day.

Six pieces of test-craft. Read them the night before sitting.

1. Read every stem twice. ICAS Paper G is famous for hiding a single word that flips the answer ("not", "least", "most likely").
2. In English, the right answer is always supported by something specific in the passage. Cover the options first, read the passage, then look.
3. In Maths, work in the margin. Most Paper G problems are multi-step. Eyeballing them is how you lose marks.
4. When two options look almost identical, find the difference. That difference is what the question is testing.
5. Mark and move. If a question takes more than 2 minutes, circle it. Come back at the end.
6. Always answer. No penalty for guessing — a blank guarantees zero.

What this could earn you.

High Distinctions at Paper G level are cited on academic CVs for IGCSE/IB/SPM applications, summer programmes, and competitive scholarship pathways. They are recognised by participating schools across Singapore and Malaysia.

Answers — part 1.

Check your answers and read the reasoning. Go back to the self-assessment on page 3 and rate yourself a second time. The gap is the value this booklet delivered.

Q	Subject	Answer	Reasoning
1	English	(D) ominous	"Forbidding" in this context means threatening or unwelcoming — the closest synonym is ominous. Not "isolated" (separate from), or "deceptive".
2	English	(B) triumphant	The narrator describes it as "a landmark day" with all pilgrims "greatly excited" — that is triumphant celebration, not nostalgia or boastfulness (boastfulness would imply showing off).
3	English	(A)	The narrator says they were treated "as if we were ignorant dummies" — the orientation covered things they already knew as experienced professionals.
4	English	(B) However,	A contrast connective is needed to introduce limitations. "However" signals contrast. "Consequently" would imply causation; "Otherwise" implies an alternative outcome.
5	Maths	(D) 48	Recipe needs $\frac{3}{4}$ cup sugar for 12 cookies. $3 \text{ cups} \div \frac{3}{4} = 4 \text{ batches}$ of 12 = 48 cookies.
6	Maths	(B) 50 minutes	Total time = 6 hours = 360 minutes. Minus breaks ($15 + 45 = 60 \text{ min}$) = 300 min for 6 lessons → 50 min each.
7	Maths	(A) $\frac{7}{25}$	Climbing = $\frac{2}{5}$. Of those, $\frac{3}{10}$ use ropes, so $\frac{7}{10}$ do NOT. Fraction not using ropes = $\frac{2}{5} \times \frac{7}{10} = \frac{14}{50} = \frac{7}{25}$.
8	Maths	(C) 3.5%	17th birthday value = $\$800 \times 1.03 = \$824$. Increase to $\$852.84 = \$28.84$. Percentage = $28.84 \div 824 = 0.035 = 3.5\%$.

Answers — part 2.

Q	Subject	Answer	Reasoning
9	Maths	(C) 24 m	Dog gains 1 m every time it runs 4 m (dog runs 4, rabbit runs 3). To gain 6 m, dog must run $6 \times 4 = 24$ m.
10	Maths	115 m	Tom: $5 \text{ m/s} \times 18 \text{ s} = 90 \text{ m}$. Jen: $5 \text{ km/h} = 5000/3600 \approx 1.389 \text{ m/s} \times 18 \text{ s} = 25 \text{ m}$. Total apart = $90 + 25 = 115 \text{ m}$.
11	Science	(C) occipital lobe	Recognising shapes is a visual processing task — the occipital lobe handles vision and integrating visual information.
12	Science	(B)	Behavioural = how an organism ACTS. Opening at night is a behaviour. The others (thick leaves, hollow bones, fat layer) are structural/physical.
13	Science	(D)	The text states he noticed MORE flowers when removing dead ones — this directly tells us the plants produce flowers. The other options aren't supported by what Alan observed.
14	Science	(C) Student C only	Accurate = close to the true value. Precise = close together (low spread). C has both. A is precise but inaccurate (systematic error). B averages to the right value but is imprecise.
15	Science	(C) 100 plants given no fertiliser	A valid investigation needs a control group with no treatment — to compare the fertiliser effect against. The other options test additional variables, not the basic question.

On the day:

Read twice. Underline the qualifier. Eliminate two wrong answers before you commit.

Never leave a question blank.