Blurt it

Step 1

Name _____ **Date** _____

1. Cover your notes and put your phone face down.
2. Set a timer for 5 minutes.
3. Write down everything you remember about inheritance, variation and evolution: facts, key words, equations, practicals, and mistakes to avoid. Diagrams count too.

Stuck? Start with one of these: allele · meiosis · natural selection

When the timer ends, turn over and check what you remembered.

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Check it, fix it, space it

Steps 2, 3 and 4

Check it

Tick each idea you wrote down, even in your own words.

- [ ] Sexual reproduction mixes genes from two gametes; asexual reproduction makes identical clones by mitosis
- [ ] Meiosis makes four genetically different gametes, each with half the chromosomes
- [ ] DNA is a polymer shaped like a double helix; a gene codes for a protein; the genome is all of an organism's genetic material
- [ ] Dominant alleles show with one copy; recessive alleles need two copies
- [ ] Complete a Punnett square and use probability to predict a single gene cross
- [ ] Polydactyly comes from a dominant allele; cystic fibrosis from a recessive allele
- [ ] Humans have 23 pairs of chromosomes: XX is female, XY is male
- [ ] Variation comes from genes, the environment or both; all new variants start as mutations
- [ ] Natural selection: the best suited survive, breed and pass on their genes; evidence includes fossils and antibiotic resistance
- [ ] Selective breeding chooses parents with useful traits; genetic engineering puts a gene from one organism into another
- [ ] Classification: the Linnaean system (kingdom down to species) and the three-domain system

Higher only

- [ ] Draw your own Punnett square from scratch to predict the outcome of a cross
- [ ] Genetic engineering steps: cut out the gene with enzymes, put it into a vector (a plasmid or virus), then insert it into cells early in development

Key words to use: gamete · meiosis · mitosis · DNA · chromosome · gene · allele · genome · dominant · recessive · homozygous · heterozygous · genotype · phenotype · Punnett square

I remembered _____ out of 11. **Higher only: _____ out of 2.**

Fix it

Pick 3 ideas you missed. Look them up, then write each one correctly.

1	2	3

Space it

Blurt again on a fresh sheet. Gaps help you remember for longer.

Tomorrow	In 3 days	In a week
Date _____	Date _____	Date _____
Score _____ / 11	Score _____ / 11	Score _____ / 11
Higher only _____ / 2	Higher only _____ / 2	Higher only _____ / 2

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