



Primary 3 Science

Complete Knowledge Point List V3 | Master Matrix V7 Derived | MOE 2023

PDF reference edition with repeated headings, complete row coverage and audit-friendly split views.

Source workbook: Primary_3_Science_Complete_KP_List_V3_Master_Derived_MOE_2023.xlsx

1. Overview

Level	Weeks	Atomic KPs	KP IDs	MOE audit blocks	Spiral records	Source control	Version
P3	40	160	P3-W01-KP1 to P3-W40-KP4	5	40	V7 Master Matrix	V3 Master-Derived
Workbook structure and audit use							
Weekly KP Plan	40-week sequence; topics, focus, stage, retrieval and scope boundary						
Atomic KP Register	160 assessable outcomes with stable master KP IDs						
Progression Map	Prior prerequisite -> current-year depth -> next-year bridge						
Spiral Retrieval Map	Named retrieval, scientific practice and checkpoint form for every week						
MOE Coverage Audit	Outcome-level coverage and boundary safeguards inherited from V7						
Assessment Blueprint	Rules for current/recent/spaced knowledge, visuals, data and inquiry						
Sources & Governance	Official sources and V7 governance controls						
Academic rule: "advanced" means deeper reasoning, unfamiliar but age-appropriate contexts, model/data interpretation and evidence-based explanation. It does not mean importing later-level terminology or content. Every future assessment item should cite its source KP ID(s).							

2. Weekly KP Plan - Curriculum and Weekly Focus

Week	Term	Term Week	Theme	Topic	Weekly Focus	Practice	Values / Attitudes	Stage
1	1	1	Science as Inquiry	Foundation	Starting Science: observing and asking questions	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Master / Transfer
2	1	2	Diversity	Living and non-living things	Characteristics of living things: survival needs	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Introduce
3	1	3	Diversity	Living and non-living things	Characteristics of living things: life processes	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Develop
4	1	4	Diversity	Living and non-living things	Living, non-living and once-living evidence	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Master / Transfer
5	1	5	Diversity	Classification	Why and how scientists classify	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Master / Transfer
6	1	6	Diversity	Classification of plants	Flowering and non-flowering plants	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Master / Transfer
7	1	7	Diversity	Classification of animals	Mammals, birds and fish	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Introduce
8	1	8	Diversity	Classification of animals	Reptiles, amphibians and insects	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Master / Transfer
9	1	9	Diversity	Other living groups	Fungi and bacteria	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Master / Transfer
10	1	10	Diversity	Term 1 Mastery	Diversity integration and scientific explanation	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Master / Transfer
11	2	1	Diversity	Materials	Materials and objects	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Introduce
12	2	2	Diversity	Materials	Strength	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Develop
13	2	3	Diversity	Materials	Flexibility	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Develop
14	2	4	Diversity	Materials	Waterproof property	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Develop
15	2	5	Diversity	Materials	Transparency	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Develop
16	2	6	Diversity	Materials	Ability to float or sink	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Apply / Consolidate
17	2	7	Diversity	Materials	Selecting materials for a purpose	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Apply / Consolidate
18	2	8	Diversity	Materials	Multi-property design challenge	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Apply / Consolidate
19	2	9	Diversity	Materials	Planning and evaluating a fair material test	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Master / Transfer
20	2	10	Diversity	Term 2 Mastery	Materials integration and transfer	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Master / Transfer
21	3	1	Cycles	Life cycles	What makes a life cycle	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Master / Transfer
22	3	2	Cycles	Plant life cycle	Seed, young plant and adult plant	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Introduce
23	3	3	Cycles	Plant life cycle	Observing plant change over time	Question; hypothesise; investigate; evaluate	Curiosity; responsibility; care and concern	Develop
24	3	4	Cycles	Plant life cycle	Comparing plant life cycles	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Master / Transfer
25	3	5	Cycles	Animal life cycles	Life cycles of chicken and frog	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Introduce
26	3	6	Cycles	Animal life cycles	Incomplete metamorphosis examples	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Develop
27	3	7	Cycles	Animal life cycles	Complete metamorphosis: butterfly and beetle	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Apply / Consolidate
28	3	8	Cycles	Animal life cycles	Complete metamorphosis: mosquito	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Master / Transfer
29	3	9	Cycles	Life-cycle comparison	Comparing across plants and animals	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Master / Transfer
30	3	10	Cycles	Term 3 Mastery	Life-cycle inquiry and boundaries	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Master / Transfer
31	4	1	Interactions	Magnets	Magnetic push and pull	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Introduce
32	4	2	Interactions	Magnets	Magnetic and non-magnetic materials	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Develop
33	4	3	Interactions	Magnets	Poles and attraction	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Develop
34	4	4	Interactions	Magnets	Repulsion and identifying poles	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Develop
35	4	5	Interactions	Magnets	Freely suspended magnet	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Develop
36	4	6	Interactions	Magnets	Comparing magnetic strength	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Apply / Consolidate
37	4	7	Interactions	Magnets	Making a magnet by stroking	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Apply / Consolidate
38	4	8	Interactions	Magnets	Making a magnet by the electrical method	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Apply / Consolidate
39	4	9	Interactions	Magnets	Uses of magnets and design	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Master / Transfer
40	4	10	P3 Mastery	Cumulative transfer	Year-end mastery, inquiry and communication	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Master / Transfer

2. Weekly KP Plan - Atomic KP Summary, Retrieval and Scope

Week	Atomic KP Summary	Named Spiral Retrieval	Observable Behaviour	Vocabulary	Scope Boundary
1	1. Distinguish an observation from an inference 2. Record observations using accurate words or simple drawings 3. Ask a testable question about an observable object or event 4. Communicate a claim supported by one piece of evidence	Recent: none; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Explains starting science: observing and asking questions accurately using relevant evidence	foundation, starting, science, observing, asking, questions, distinguish, observation, inference, record	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
2	1. Recognise that living things need water to survive 2. Recognise that living things need food to survive 3. Recognise that living things need air to survive 4. Use survival needs as evidence when deciding whether something is living	Recent: P3-W01 to W01; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Explains characteristics of living things: survival needs accurately using relevant evidence	living, non, things, characteristics, survival, needs, recognise, need, water, survive	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life
3	1. Recognise that living things grow 2. Recognise that living things respond to changes around them 3. Recognise that living things reproduce 4. Use more than one characteristic to justify that something is living	Recent: P3-W01 to W02; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Explains characteristics of living things: life processes accurately using relevant evidence	living, non, things, characteristics, life, processes, recognise, grow, respond, changes	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life
4	1. Classify clear examples as living or non-living 2. Recognise that a dead organism was once living 3. Recognise that an object made from living material is not currently living 4. Explain a classification using observable evidence rather than appearance	Recent: P3-W02 to W03; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Explains living, non-living and once-living evidence accurately using relevant evidence	living, non, things, once, evidence, classify, clear, examples, recognise, dead	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life
5	1. Recognise that classification groups things by similarities and differences 2. Choose a relevant observable characteristic for sorting 3. Apply one consistent classification rule to a set 4. Check whether every item fits the stated rule	Recent: P3-W03 to W04; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Explains why and how scientists classify accurately using relevant evidence	classification, why, how, scientists, classify, recognise, groups, things, similarities, differences	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
6	1. Recognise plants as a broad group of living things 2. Classify familiar plants as flowering or non-flowering using observable evidence 3. Compare two plants using common observable characteristics 4. Ask a testable question about an observable difference between two plants	Recent: P3-W04 to W05; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Explains flowering and non-flowering plants accurately using relevant evidence	classification, plants, flowering, non, recognise, broad, group, living, things, classify	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
7	1. Recognise mammals as a broad animal group 2. Recognise birds as a broad animal group 3. Recognise fish as a broad animal group 4. Classify familiar animals using common observable characteristics	Recent: P3-W05 to W06; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Explains mammals, birds and fish accurately using relevant evidence	classification, animals, mammals, birds, fish, recognise, broad, animal, group, classify	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
8	1. Recognise reptiles as a broad animal group 2. Recognise amphibians as a broad animal group 3. Recognise insects as a broad animal group 4. Distinguish the six P3 animal groups using relevant observable characteristics	Recent: P3-W06 to W07; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Explains reptiles, amphibians and insects accurately using relevant evidence	classification, animals, reptiles, amphibians, insects, recognise, broad, animal, group, distinguish	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
9	1. Recognise fungi as a broad group of living things 2. Recognise mould, mushroom and yeast as examples of fungi 3. Recognise bacteria as a broad group of living things 4. Distinguish recognising fungi or bacteria from classifying plants and animals	Recent: P3-W07 to W08; Spaced: P3-W01; Prerequisite: P2 inquiry readiness	Explains fungi and bacteria accurately using relevant evidence	other, living, groups, fungi, bacteria, recognise, broad, group, things, mould	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
10	1. Classify living and non-living examples using multiple characteristics 2. Classify plants and animals into appropriate broad groups 3. Use a simple key to identify an unfamiliar organism 4. Defend one classification and revise it if stronger observable evidence is provided	Recent: P3-W08 to W09; Spaced: P3-W02; Prerequisite: P2 inquiry readiness	Explains diversity integration and scientific explanation accurately using relevant evidence	term, mastery, diversity, integration, scientific, explanation, classify, living, non, examples	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
11	1. Distinguish an object from the material used to make it 2. Recognise ceramic, fabric, glass, metal, plastic, rubber and wood 3. Identify that one object may contain more than one material 4. Identify that the same material can be used for different objects	Recent: P3-W09 to W10; Spaced: P3-W03; Prerequisite: P2 inquiry readiness	Explains materials and objects accurately using relevant evidence	materials, objects, distinguish, object, material, used, make, recognise, ceramic, fabric	P3 boundary: describe observable properties; avoid particle-level explanations
12	1. Describe strength as a material's ability to withstand a load without breaking 2. Compare materials fairly for strength 3. Use results rather than appearance to identify the stronger material 4. Relate strength to a suitable everyday use	Recent: P3-W10 to W11; Spaced: P3-W04; Prerequisite: P2 inquiry readiness	Explains strength accurately using relevant evidence	materials, strength, describe, material, ability, withstand, load, without, breaking, compare	P3 boundary: describe observable properties; avoid particle-level explanations
13	1. Describe flexibility as the ability to bend without breaking 2. Compare materials for flexibility using the same method 3. Distinguish flexible from strong 4. Relate flexibility to a suitable everyday use	Recent: P3-W11 to W12; Spaced: P3-W05; Prerequisite: P2 inquiry readiness	Explains flexibility accurately using relevant evidence	materials, flexibility, describe, ability, bend, without, breaking, compare, same, method	P3 boundary: describe observable properties; avoid particle-level explanations
14	1. Describe a waterproof material as one that does not absorb water 2. Compare materials for waterproofness using equal amounts of water and equal observation time 3. Use absorption observations as evidence when deciding whether a material is waterproof 4. Relate waterproofness to suitable uses	Recent: P3-W12 to W13; Spaced: P3-W06; Prerequisite: P2 inquiry readiness	Explains waterproof property accurately using relevant evidence	materials, waterproof, property, describe, material, one, does, not, absorb, water	P3 boundary: describe observable properties; avoid particle-level explanations
15	1. Describe a transparent material as allowing light to pass through so objects can be seen clearly 2. Compare materials for transparency 3. Distinguish transparency from being colourless 4. Relate transparency to suitable uses	Recent: P3-W13 to W14; Spaced: P3-W07; Prerequisite: P2 inquiry readiness	Explains transparency accurately using relevant evidence	materials, transparency, describe, transparent, material, allowing, light, pass, through, objects	P3 boundary: describe observable properties; avoid particle-level explanations
16	1. Classify tested materials by whether they float or sink in water 2. Select and use suitable apparatus for a safe, fair float/sink comparison 3. Record floating and sinking observations accurately 4. Avoid claiming that every object made of one material behaves identically regardless of design	Recent: P3-W14 to W15; Spaced: P3-W08; Prerequisite: P2 inquiry readiness	Explains ability to float or sink accurately using relevant evidence	materials, ability, float, sink, classify, tested, whether, they, water, select	P3 boundary: describe observable properties; avoid particle-level explanations
17	1. Identify the properties required for a stated object 2. Match a material to a use using relevant properties 3. Explain why one material is more suitable than another 4. Recognise that a useful object may require a combination of materials	Recent: P3-W15 to W16; Spaced: P3-W09; Prerequisite: P2 inquiry readiness	Explains selecting materials for a purpose accurately using relevant evidence	materials, selecting, purpose, identify, properties, required, stated, object, match, material	P3 boundary: describe observable properties; avoid particle-level explanations
18	1. Compare materials using two or more properties 2. Prioritise properties for a specific purpose 3. Use test data to justify a material choice 4. Identify a trade-off when no material has every desired property	Recent: P3-W16 to W17; Spaced: P3-W10; Prerequisite: P2 inquiry readiness	Explains multi-property design challenge accurately using relevant evidence	materials, multi, property, design, challenge, compare, two, more, properties, prioritise	P3 boundary: describe observable properties; avoid particle-level explanations
19	1. State the property being tested 2. Identify what should be changed in a comparison 3. Select suitable apparatus and state what should be observed or measured 4. Identify important conditions to keep the same and suggest one improvement	Recent: P3-W17 to W18; Spaced: P3-W11; Prerequisite: P2 inquiry readiness	Explains planning and evaluating a fair material test accurately using relevant evidence	materials, planning, evaluating, fair, material, test, state, property, being, tested	P3 boundary: describe observable properties; avoid particle-level explanations
20	1. Recognise the seven named material types in unfamiliar objects 2. Compare materials across all five P3 physical properties 3. Select a material for a novel use using evidence 4. Evaluate a claim about material suitability using test data	Recent: P3-W18 to W19; Spaced: P3-W12; Prerequisite: P2 inquiry readiness	Explains materials integration and transfer accurately using relevant evidence	term, mastery, materials, integration, transfer, recognise, seven, named, material, types	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
21	1. Recognise a life cycle as repeated stages in the life of a living thing 2. Sequence stages from young to adult 3. Recognise that adults reproduce to begin a new cycle 4. Use a cycle diagram rather than a straight list when appropriate	Recent: P3-W19 to W20; Spaced: P3-W13; Prerequisite: P2 inquiry readiness	Explains what makes a life cycle accurately using relevant evidence	life, cycles, what, makes, cycle, recognise, repeated, stages, living, thing	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
22	1. Identify seed as a P3 flowering-plant life-cycle stage 2. Identify young plant as a P3 life-cycle stage 3. Identify adult plant as a P3 life-cycle stage 4. Arrange the three stages in a repeating cycle	Recent: P3-W20 to W21; Spaced: P3-W14; Prerequisite: P2 inquiry readiness	Explains seed, young plant and adult plant accurately using relevant evidence	plant, life, cycle, seed, young, adult, identify, flowering, stage, arrange	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
23	1. Record dated observations of a plant grown from a seed 2. Identify changes between consecutive observations 3. Select a suitable measuring tool and use drawings and simple measurements consistently 4. Ask a new investigable question or predict the next stage from the observed pattern	Recent: P3-W21 to W22; Spaced: P3-W15; Prerequisite: P2 inquiry readiness	Explains observing plant change over time accurately using relevant evidence	plant, life, cycle, observing, change, over, time, record, dated, observations	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
24	1. Compare stages in the life cycles of two flowering plants 2. Identify a shared seed-young plant-adult plant pattern 3. Identify observable differences without changing the core cycle 4. Revise a plant life-cycle model when new observation evidence is provided	Recent: P3-W22 to W23; Spaced: P3-W16; Prerequisite: P2 inquiry readiness	Explains comparing plant life cycles accurately using relevant evidence	plant, life, cycle, comparing, cycles, compare, stages, two, flowering, plants	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
25	1. Sequence the observable stages in a chicken life-cycle diagram 2. Sequence the observable stages in a frog life-cycle diagram, including a froglet when shown 3. Compare the young and adult forms of chicken and frog using observable evidence 4. Recognise that the number and names of stages depend on the organism and the diagram provided	Recent: P3-W23 to W24; Spaced: P3-W17; Prerequisite: P2 inquiry readiness	Explains life cycles of chicken and frog accurately using relevant evidence	animal, life, cycles, chicken, frog, sequence, observable, stages, cycle, diagram	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
26	1. Sequence egg, nymph and adult stages for a cockroach 2. Sequence egg, nymph and adult stages for a grasshopper 3. Compare a nymph with its adult using observable features 4. Recognise the three-stage pattern in cockroach and grasshopper life cycles	Recent: P3-W24 to W25; Spaced: P3-W18; Prerequisite: P2 inquiry readiness	Explains incomplete metamorphosis examples accurately using relevant evidence	animal, life, cycles, incomplete, metamorphosis, examples, sequence, egg, nymph, adult	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
27	1. Sequence egg, larva, pupa and adult stages for a butterfly 2. Sequence egg, larva, pupa and adult stages for a beetle 3. Recognise larva and pupa as distinct stages 4. Compare butterfly and beetle life cycles using the four-stage pattern	Recent: P3-W25 to W26; Spaced: P3-W19; Prerequisite: P2 inquiry readiness	Explains complete metamorphosis: butterfly and beetle accurately using relevant evidence	animal, life, cycles, complete, metamorphosis, butterfly, beetle, sequence, egg, larva	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
28	1. Sequence egg, larva, pupa and adult stages for a mosquito 2. Identify that mosquito larvae and pupae live in water 3. Compare the mosquito cycle with another four-stage animal cycle 4. Relate removal of stagnant water to interruption of the mosquito life cycle	Recent: P3-W26 to W27; Spaced: P3-W20; Prerequisite: P2 inquiry readiness	Explains complete metamorphosis: mosquito accurately using relevant evidence	animal, life, cycles, complete, metamorphosis, mosquito, sequence, egg, larva, pupa	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
29	1. Compare plant and animal life cycles for repeated stages and growth 2. Compare the number, names and observable features of stages shown in different animal cycles 3. Use stage evidence to identify an unknown life cycle 4. Predict a missing stage in a cycle diagram	Recent: P3-W27 to W28; Spaced: P3-W21; Prerequisite: P2 inquiry readiness	Explains comparing across plants and animals accurately using relevant evidence	life, cycle, comparison, comparing, across, plants, animals, compare, plant, animal	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
30	1. Interpret unfamiliar plant or animal life-cycle diagrams 2. Explain one similarity and one difference between two cycles 3. Evaluate whether a proposed sequence is supported by evidence 4. Keep P3 explanations within observable life-cycle stages without requiring P5 reproduction processes	Recent: P3-W28 to W29; Spaced: P3-W22; Prerequisite: P2 inquiry readiness	Explains life-cycle inquiry and boundaries accurately using relevant evidence	term, mastery, life, cycle, inquiry, boundaries, interpret, unfamiliar, plant, animal	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms
31	1. Recognise that a magnet can exert a push 2. Recognise that a magnet can exert a pull 3. Distinguish contact push/pull from magnetic push/pull in a setup 4. Predict motion when a magnetic interaction changes	Recent: P3-W29 to W30; Spaced: P3-W23; Prerequisite: P2 inquiry readiness	Explains magnetic push and pull accurately using relevant evidence	magnets, magnetic, push, pull, recognise, magnet, can, exert, distinguish, contact	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required
32	1. Identify iron and steel as magnetic materials 2. Distinguish a magnet from a magnetic material 3. Select and use a magnet appropriately to classify tested objects 4. Ask a new investigable question from the magnetic-test results	Recent: P3-W30 to W31; Spaced: P3-W24; Prerequisite: P2 inquiry readiness	Explains magnetic and non-magnetic materials accurately using relevant evidence	magnets, magnetic, non, materials, identify, iron, steel, distinguish, magnet, material	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required
33	1. Identify that a magnet has two poles 2. Recognise north and south poles as labels for magnet poles 3. Predict that unlike poles attract 4. Use attraction evidence carefully because magnets can also attract magnetic materials	Recent: P3-W31 to W32; Spaced: P3-W25; Prerequisite: P2 inquiry readiness	Explains poles and attraction accurately using relevant evidence	magnets, poles, attraction, identify, magnet, has, two, recognise, north, south	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required
34	1. Predict that like poles repel 2. Recognise repulsion as evidence of magnet-to-magnet interaction 3. Use a known pole to identify an unknown pole 4. Explain attraction and repulsion using pole relationships	Recent: P3-W32 to W33; Spaced: P3-W26; Prerequisite: P2 inquiry readiness	Explains repulsion and identifying poles accurately using relevant evidence	magnets, repulsion, identifying, poles, predict, like, repel, recognise, evidence, magnet	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required
35	1. Recognise that a freely suspended bar magnet comes to rest in a north-south direction 2. Select a suitable suspension setup that allows the bar magnet to turn freely 3. Distinguish direction finding from attraction to nearby materials 4. Revise a direction model after interpreting repeated observations	Recent: P3-W33 to W34; Spaced: P3-W27; Prerequisite: P2 inquiry readiness	Explains freely suspended magnet accurately using relevant evidence	magnets, freely, suspended, magnet, recognise, bar, comes, rest, north, south	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required
36	1. Compare magnet strength using a defined outcome such as number of identical clips lifted 2. Select suitable apparatus and identify the changed magnet in a fair comparison 3. Keep clip type and testing method the same 4. Use repeated table or bar-chart data to defend which magnet is stronger	Recent: P3-W34 to W35; Spaced: P3-W28; Prerequisite: P2 inquiry readiness	Explains comparing magnetic strength accurately using relevant evidence	magnets, comparing, magnetic, strength, compare, magnet, defined, outcome, such, number	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required
37	1. Recognise stroking as one method of making a magnet 2. Follow a repeated one-direction stroke model 3. Use a magnetic test before and after stroking 4. Evaluate evidence that the object became magnetised	Recent: P3-W35 to W36; Spaced: P3-W29; Prerequisite: P2 inquiry readiness	Explains making a magnet by stroking accurately using relevant evidence	magnets, making, magnet, stroking, recognise, one, method, follow, repeated, direction	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required

Week	Atomic KP Summary	Named Spiral Retrieval	Observable Behaviour	Vocabulary	Scope Boundary
38	1. Recognise the electrical method as another way to make a magnet 2. Identify the coil, iron or steel object and electrical source in a simple setup 3. Use a before-and-after magnetic test 4. Follow safety instructions and avoid constructing circuits beyond the provided setup	Recent: P3-W36 to W37; Spaced: P3-W30; Prerequisite: P2 inquiry readiness	Explains making a magnet by the electrical method accurately using relevant evidence	magnets, making, magnet, electrical, method, recognise, another, way, make, identify	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required
39	1. Recognise uses of magnets in familiar everyday objects 2. Explain a use by linking it to attraction or repulsion 3. Generate and compare more than one workable magnetic design 4. Ask an investigable question that could improve the chosen design	Recent: P3-W37 to W38; Spaced: P3-W31; Prerequisite: P2 inquiry readiness	Explains uses of magnets and design accurately using relevant evidence	magnets, uses, design, recognise, familiar, everyday, objects, explain, use, linking	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required
40	1. Integrate classification, material properties, life cycles and magnets in one unfamiliar context 2. Interpret diagrams, tables, charts and observation records accurately 3. Defend the stronger of two competing claims using evidence 4. Revise an explanation or model and communicate one responsible action	Recent: P3-W38 to W39; Spaced: P3-W32; Prerequisite: P2 inquiry readiness	Explains year-end mastery, inquiry and communication accurately using relevant evidence	cumulative, transfer, year, end, mastery, inquiry, communication, integrate, classification, material	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms

3. Atomic KP Register - Atomic KP Content View

KP ID	Week	Theme	Topic	Weekly Focus	No.	Atomic Knowledge Point	Stage	Status	Cognitive Demand
P3-W01-KP1	1	Science as Inquiry	Foundation	Starting Science: observing and asking questions	1	Distinguish an observation from an inference	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W01-KP2	1	Science as Inquiry	Foundation	Starting Science: observing and asking questions	2	Record observations using accurate words or simple drawings	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W01-KP3	1	Science as Inquiry	Foundation	Starting Science: observing and asking questions	3	Ask a testable question about an observable object or event	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W01-KP4	1	Science as Inquiry	Foundation	Starting Science: observing and asking questions	4	Communicate a claim supported by one piece of evidence	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W02-KP1	2	Diversity	Living and non-living things	Characteristics of living things: survival needs	1	Recognise that living things need water to survive	Introduce	MOE Explicit Core	Know / Understand
P3-W02-KP2	2	Diversity	Living and non-living things	Characteristics of living things: survival needs	2	Recognise that living things need food to survive	Introduce	MOE Explicit Core	Explain / Interpret
P3-W02-KP3	2	Diversity	Living and non-living things	Characteristics of living things: survival needs	3	Recognise that living things need air to survive	Introduce	MOE Practice / Application	Apply / Analyse
P3-W02-KP4	2	Diversity	Living and non-living things	Characteristics of living things: survival needs	4	Use survival needs as evidence when deciding whether something is living	Introduce	MOE Transfer / Evaluation	Evaluate / Improve
P3-W03-KP1	3	Diversity	Living and non-living things	Characteristics of living things: life processes	1	Recognise that living things grow	Develop	MOE Explicit Core	Know / Understand
P3-W03-KP2	3	Diversity	Living and non-living things	Characteristics of living things: life processes	2	Recognise that living things respond to changes around them	Develop	MOE Explicit Core	Explain / Interpret
P3-W03-KP3	3	Diversity	Living and non-living things	Characteristics of living things: life processes	3	Recognise that living things reproduce	Develop	MOE Practice / Application	Apply / Analyse
P3-W03-KP4	3	Diversity	Living and non-living things	Characteristics of living things: life processes	4	Use more than one characteristic to justify that something is living	Develop	MOE Transfer / Evaluation	Evaluate / Improve
P3-W04-KP1	4	Diversity	Living and non-living things	Living, non-living and once-living evidence	1	Classify clear examples as living or non-living	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W04-KP2	4	Diversity	Living and non-living things	Living, non-living and once-living evidence	2	Recognise that a dead organism was once living	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W04-KP3	4	Diversity	Living and non-living things	Living, non-living and once-living evidence	3	Recognise that an object made from living material is not currently living	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W04-KP4	4	Diversity	Living and non-living things	Living, non-living and once-living evidence	4	Explain a classification using observable evidence rather than appearance	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W05-KP1	5	Diversity	Classification	Why and how scientists classify	1	Recognise that classification groups things by similarities and differences	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W05-KP2	5	Diversity	Classification	Why and how scientists classify	2	Choose a relevant observable characteristic for sorting	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W05-KP3	5	Diversity	Classification	Why and how scientists classify	3	Apply one consistent classification rule to a set	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W05-KP4	5	Diversity	Classification	Why and how scientists classify	4	Check whether every item fits the stated rule	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W06-KP1	6	Diversity	Classification of plants	Flowering and non-flowering plants	1	Recognise plants as a broad group of living things	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W06-KP2	6	Diversity	Classification of plants	Flowering and non-flowering plants	2	Classify familiar plants as flowering or non-flowering using observable evidence	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W06-KP3	6	Diversity	Classification of plants	Flowering and non-flowering plants	3	Compare two plants using common observable characteristics	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W06-KP4	6	Diversity	Classification of plants	Flowering and non-flowering plants	4	Ask a testable question about an observable difference between two plants	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W07-KP1	7	Diversity	Classification of animals	Mammals, birds and fish	1	Recognise mammals as a broad animal group	Introduce	MOE Explicit Core	Know / Understand
P3-W07-KP2	7	Diversity	Classification of animals	Mammals, birds and fish	2	Recognise birds as a broad animal group	Introduce	MOE Explicit Core	Explain / Interpret
P3-W07-KP3	7	Diversity	Classification of animals	Mammals, birds and fish	3	Recognise fish as a broad animal group	Introduce	MOE Practice / Application	Apply / Analyse
P3-W07-KP4	7	Diversity	Classification of animals	Mammals, birds and fish	4	Classify familiar animals using common observable characteristics	Introduce	MOE Transfer / Evaluation	Evaluate / Improve
P3-W08-KP1	8	Diversity	Classification of animals	Reptiles, amphibians and insects	1	Recognise reptiles as a broad animal group	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W08-KP2	8	Diversity	Classification of animals	Reptiles, amphibians and insects	2	Recognise amphibians as a broad animal group	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W08-KP3	8	Diversity	Classification of animals	Reptiles, amphibians and insects	3	Recognise insects as a broad animal group	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W08-KP4	8	Diversity	Classification of animals	Reptiles, amphibians and insects	4	Distinguish the six P3 animal groups using relevant observable characteristics	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W09-KP1	9	Diversity	Other living groups	Fungi and bacteria	1	Recognise fungi as a broad group of living things	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W09-KP2	9	Diversity	Other living groups	Fungi and bacteria	2	Recognise mould, mushroom and yeast as examples of fungi	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W09-KP3	9	Diversity	Other living groups	Fungi and bacteria	3	Recognise bacteria as a broad group of living things	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W09-KP4	9	Diversity	Other living groups	Fungi and bacteria	4	Distinguish recognising fungi or bacteria from classifying plants and animals	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W10-KP1	10	Diversity	Term 1 Mastery	Diversity integration and scientific explanation	1	Classify living and non-living examples using multiple characteristics	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W10-KP2	10	Diversity	Term 1 Mastery	Diversity integration and scientific explanation	2	Classify plants and animals into appropriate broad groups	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W10-KP3	10	Diversity	Term 1 Mastery	Diversity integration and scientific explanation	3	Use a simple key to identify an unfamiliar organism	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W10-KP4	10	Diversity	Term 1 Mastery	Diversity integration and scientific explanation	4	Defend one classification and revise it if stronger observable evidence is provided	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W11-KP1	11	Diversity	Materials	Materials and objects	1	Distinguish an object from the material used to make it	Introduce	MOE Explicit Core	Know / Understand
P3-W11-KP2	11	Diversity	Materials	Materials and objects	2	Recognise ceramic, fabric, glass, metal, plastic, rubber and wood	Introduce	MOE Explicit Core	Explain / Interpret
P3-W11-KP3	11	Diversity	Materials	Materials and objects	3	Identify that one object may contain more than one material	Introduce	MOE Practice / Application	Apply / Analyse
P3-W11-KP4	11	Diversity	Materials	Materials and objects	4	Identify that the same material can be used for different objects	Introduce	MOE Transfer / Evaluation	Evaluate / Improve
P3-W12-KP1	12	Diversity	Materials	Strength	1	Describe strength as a material's ability to withstand a load without breaking	Develop	MOE Explicit Core	Know / Understand
P3-W12-KP2	12	Diversity	Materials	Strength	2	Compare materials fairly for strength	Develop	MOE Explicit Core	Explain / Interpret
P3-W12-KP3	12	Diversity	Materials	Strength	3	Use results rather than appearance to identify the stronger material	Develop	MOE Practice / Application	Apply / Analyse
P3-W12-KP4	12	Diversity	Materials	Strength	4	Relate strength to a suitable everyday use	Develop	MOE Transfer / Evaluation	Evaluate / Improve
P3-W13-KP1	13	Diversity	Materials	Flexibility	1	Describe flexibility as the ability to bend without breaking	Develop	MOE Explicit Core	Know / Understand
P3-W13-KP2	13	Diversity	Materials	Flexibility	2	Compare materials for flexibility using the same method	Develop	MOE Explicit Core	Explain / Interpret
P3-W13-KP3	13	Diversity	Materials	Flexibility	3	Distinguish flexible from strong	Develop	MOE Practice / Application	Apply / Analyse
P3-W13-KP4	13	Diversity	Materials	Flexibility	4	Relate flexibility to a suitable everyday use	Develop	MOE Transfer / Evaluation	Evaluate / Improve
P3-W14-KP1	14	Diversity	Materials	Waterproof property	1	Describe a waterproof material as one that does not absorb water	Develop	MOE Explicit Core	Know / Understand
P3-W14-KP2	14	Diversity	Materials	Waterproof property	2	Compare materials for waterproofness using equal amounts of water and equal observation time	Develop	MOE Explicit Core	Explain / Interpret
P3-W14-KP3	14	Diversity	Materials	Waterproof property	3	Use absorption observations as evidence when deciding whether a material is waterproof	Develop	MOE Practice / Application	Apply / Analyse
P3-W14-KP4	14	Diversity	Materials	Waterproof property	4	Relate waterproofness to suitable uses	Develop	MOE Transfer / Evaluation	Evaluate / Improve
P3-W15-KP1	15	Diversity	Materials	Transparency	1	Describe a transparent material as allowing light to pass through so objects can be seen clearly	Develop	MOE Explicit Core	Know / Understand
P3-W15-KP2	15	Diversity	Materials	Transparency	2	Compare materials for transparency	Develop	MOE Explicit Core	Explain / Interpret
P3-W15-KP3	15	Diversity	Materials	Transparency	3	Distinguish transparency from being colourless	Develop	MOE Practice / Application	Apply / Analyse
P3-W15-KP4	15	Diversity	Materials	Transparency	4	Relate transparency to suitable uses	Develop	MOE Transfer / Evaluation	Evaluate / Improve
P3-W16-KP1	16	Diversity	Materials	Ability to float or sink	1	Classify tested materials by whether they float or sink in water	Apply / Consolidate	MOE Explicit Core	Know / Understand
P3-W16-KP2	16	Diversity	Materials	Ability to float or sink	2	Select and use suitable apparatus for a safe, fair float/sink comparison	Apply / Consolidate	MOE Explicit Core	Explain / Interpret
P3-W16-KP3	16	Diversity	Materials	Ability to float or sink	3	Record floating and sinking observations accurately	Apply / Consolidate	MOE Practice / Application	Apply / Analyse
P3-W16-KP4	16	Diversity	Materials	Ability to float or sink	4	Avoid claiming that every object made of one material behaves identically regardless of design	Apply / Consolidate	MOE Transfer / Evaluation	Evaluate / Improve
P3-W17-KP1	17	Diversity	Materials	Selecting materials for a purpose	1	Identify the properties required for a stated object	Apply / Consolidate	MOE Explicit Core	Know / Understand
P3-W17-KP2	17	Diversity	Materials	Selecting materials for a purpose	2	Match a material to a use using relevant properties	Apply / Consolidate	MOE Explicit Core	Explain / Interpret
P3-W17-KP3	17	Diversity	Materials	Selecting materials for a purpose	3	Explain why one material is more suitable than another	Apply / Consolidate	MOE Practice / Application	Apply / Analyse

KP ID	Week	Theme	Topic	Weekly Focus	No.	Atomic Knowledge Point	Stage	Status	Cognitive Demand
P3-W17-KP4	17	Diversity	Materials	Selecting materials for a purpose	4	Recognise that a useful object may require a combination of materials	Apply / Consolidate	MOE Transfer / Evaluation	Evaluate / Improve
P3-W18-KP1	18	Diversity	Materials	Multi-property design challenge	1	Compare materials using two or more properties	Apply / Consolidate	MOE Explicit Core	Know / Understand
P3-W18-KP2	18	Diversity	Materials	Multi-property design challenge	2	Prioritise properties for a specific purpose	Apply / Consolidate	MOE Explicit Core	Explain / Interpret
P3-W18-KP3	18	Diversity	Materials	Multi-property design challenge	3	Use test data to justify a material choice	Apply / Consolidate	MOE Practice / Application	Apply / Analyse
P3-W18-KP4	18	Diversity	Materials	Multi-property design challenge	4	Identify a trade-off when no material has every desired property	Apply / Consolidate	MOE Transfer / Evaluation	Evaluate / Improve
P3-W19-KP1	19	Diversity	Materials	Planning and evaluating a fair material test	1	State the property being tested	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W19-KP2	19	Diversity	Materials	Planning and evaluating a fair material test	2	Identify what should be changed in a comparison	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W19-KP3	19	Diversity	Materials	Planning and evaluating a fair material test	3	Select suitable apparatus and state what should be observed or measured	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W19-KP4	19	Diversity	Materials	Planning and evaluating a fair material test	4	Identify important conditions to keep the same and suggest one improvement	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W20-KP1	20	Diversity	Term 2 Mastery	Materials integration and transfer	1	Recognise the seven named material types in unfamiliar objects	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W20-KP2	20	Diversity	Term 2 Mastery	Materials integration and transfer	2	Compare materials across all five P3 physical properties	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W20-KP3	20	Diversity	Term 2 Mastery	Materials integration and transfer	3	Select a material for a novel use using evidence	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W20-KP4	20	Diversity	Term 2 Mastery	Materials integration and transfer	4	Evaluate a claim about material suitability using test data	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W21-KP1	21	Cycles	Life cycles	What makes a life cycle	1	Recognise a life cycle as repeated stages in the life of a living thing	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W21-KP2	21	Cycles	Life cycles	What makes a life cycle	2	Sequence stages from young to adult	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W21-KP3	21	Cycles	Life cycles	What makes a life cycle	3	Recognise that adults reproduce to begin a new cycle	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W21-KP4	21	Cycles	Life cycles	What makes a life cycle	4	Use a cycle diagram rather than a straight list when appropriate	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W22-KP1	22	Cycles	Plant life cycle	Seed, young plant and adult plant	1	Identify seed as a P3 flowering-plant life-cycle stage	Introduce	MOE Explicit Core	Know / Understand
P3-W22-KP2	22	Cycles	Plant life cycle	Seed, young plant and adult plant	2	Identify young plant as a P3 life-cycle stage	Introduce	MOE Explicit Core	Explain / Interpret
P3-W22-KP3	22	Cycles	Plant life cycle	Seed, young plant and adult plant	3	Identify adult plant as a P3 life-cycle stage	Introduce	MOE Practice / Application	Apply / Analyse
P3-W22-KP4	22	Cycles	Plant life cycle	Seed, young plant and adult plant	4	Arrange the three stages in a repeating cycle	Introduce	MOE Transfer / Evaluation	Evaluate / Improve
P3-W23-KP1	23	Cycles	Plant life cycle	Observing plant change over time	1	Record dated observations of a plant grown from a seed	Develop	MOE Explicit Core	Know / Understand
P3-W23-KP2	23	Cycles	Plant life cycle	Observing plant change over time	2	Identify changes between consecutive observations	Develop	MOE Explicit Core	Explain / Interpret
P3-W23-KP3	23	Cycles	Plant life cycle	Observing plant change over time	3	Select a suitable measuring tool and use drawings and simple measurements consistently	Develop	MOE Practice / Application	Apply / Analyse
P3-W23-KP4	23	Cycles	Plant life cycle	Observing plant change over time	4	Ask a new investigable question or predict the next stage from the observed pattern	Develop	MOE Transfer / Evaluation	Evaluate / Improve
P3-W24-KP1	24	Cycles	Plant life cycle	Comparing plant life cycles	1	Compare stages in the life cycles of two flowering plants	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W24-KP2	24	Cycles	Plant life cycle	Comparing plant life cycles	2	Identify a shared seed-young plant-adult plant pattern	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W24-KP3	24	Cycles	Plant life cycle	Comparing plant life cycles	3	Identify observable differences without changing the core cycle	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W24-KP4	24	Cycles	Plant life cycle	Comparing plant life cycles	4	Revise a plant life-cycle model when new observation evidence is provided	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W25-KP1	25	Cycles	Animal life cycles	Life cycles of chicken and frog	1	Sequence the observable stages in a chicken life-cycle diagram	Introduce	MOE Explicit Core	Know / Understand
P3-W25-KP2	25	Cycles	Animal life cycles	Life cycles of chicken and frog	2	Sequence the observable stages in a frog life-cycle diagram, including a froglet when shown	Introduce	MOE Explicit Core	Explain / Interpret
P3-W25-KP3	25	Cycles	Animal life cycles	Life cycles of chicken and frog	3	Compare the young and adult forms of chicken and frog using observable evidence	Introduce	MOE Practice / Application	Apply / Analyse
P3-W25-KP4	25	Cycles	Animal life cycles	Life cycles of chicken and frog	4	Recognise that the number and names of stages depend on the organism and the diagram provided	Introduce	MOE Transfer / Evaluation	Evaluate / Improve
P3-W26-KP1	26	Cycles	Animal life cycles	Incomplete metamorphosis examples	1	Sequence egg, nymph and adult stages for a cockroach	Develop	MOE Explicit Core	Know / Understand
P3-W26-KP2	26	Cycles	Animal life cycles	Incomplete metamorphosis examples	2	Sequence egg, nymph and adult stages for a grasshopper	Develop	MOE Explicit Core	Explain / Interpret
P3-W26-KP3	26	Cycles	Animal life cycles	Incomplete metamorphosis examples	3	Compare a nymph with its adult using observable features	Develop	MOE Practice / Application	Apply / Analyse
P3-W26-KP4	26	Cycles	Animal life cycles	Incomplete metamorphosis examples	4	Recognise the three-stage pattern in cockroach and grasshopper life cycles	Develop	MOE Transfer / Evaluation	Evaluate / Improve
P3-W27-KP1	27	Cycles	Animal life cycles	Complete metamorphosis: butterfly and beetle	1	Sequence egg, larva, pupa and adult stages for a butterfly	Apply / Consolidate	MOE Explicit Core	Know / Understand
P3-W27-KP2	27	Cycles	Animal life cycles	Complete metamorphosis: butterfly and beetle	2	Sequence egg, larva, pupa and adult stages for a beetle	Apply / Consolidate	MOE Explicit Core	Explain / Interpret
P3-W27-KP3	27	Cycles	Animal life cycles	Complete metamorphosis: butterfly and beetle	3	Recognise larva and pupa as distinct stages	Apply / Consolidate	MOE Practice / Application	Apply / Analyse
P3-W27-KP4	27	Cycles	Animal life cycles	Complete metamorphosis: butterfly and beetle	4	Compare butterfly and beetle life cycles using the four-stage pattern	Apply / Consolidate	MOE Transfer / Evaluation	Evaluate / Improve
P3-W28-KP1	28	Cycles	Animal life cycles	Complete metamorphosis: mosquito	1	Sequence egg, larva, pupa and adult stages for a mosquito	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W28-KP2	28	Cycles	Animal life cycles	Complete metamorphosis: mosquito	2	Identify that mosquito larvae and pupae live in water	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W28-KP3	28	Cycles	Animal life cycles	Complete metamorphosis: mosquito	3	Compare the mosquito cycle with another four-stage animal cycle	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W28-KP4	28	Cycles	Animal life cycles	Complete metamorphosis: mosquito	4	Relate removal of stagnant water to interruption of the mosquito life cycle	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W29-KP1	29	Cycles	Life-cycle comparison	Comparing across plants and animals	1	Compare plant and animal life cycles for repeated stages and growth	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W29-KP2	29	Cycles	Life-cycle comparison	Comparing across plants and animals	2	Compare the number, names and observable features of stages shown in different animal cycles	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W29-KP3	29	Cycles	Life-cycle comparison	Comparing across plants and animals	3	Use stage evidence to identify an unknown life cycle	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W29-KP4	29	Cycles	Life-cycle comparison	Comparing across plants and animals	4	Predict a missing stage in a cycle diagram	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W30-KP1	30	Cycles	Term 3 Mastery	Life-cycle inquiry and boundaries	1	Interpret unfamiliar plant or animal life-cycle diagrams	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W30-KP2	30	Cycles	Term 3 Mastery	Life-cycle inquiry and boundaries	2	Explain one similarity and one difference between two cycles	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W30-KP3	30	Cycles	Term 3 Mastery	Life-cycle inquiry and boundaries	3	Evaluate whether a proposed sequence is supported by evidence	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W30-KP4	30	Cycles	Term 3 Mastery	Life-cycle inquiry and boundaries	4	Keep P3 explanations within observable life-cycle stages without requiring P5 reproduction processes	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W31-KP1	31	Interactions	Magnets	Magnetic push and pull	1	Recognise that a magnet can exert a push	Introduce	MOE Explicit Core	Know / Understand
P3-W31-KP2	31	Interactions	Magnets	Magnetic push and pull	2	Recognise that a magnet can exert a pull	Introduce	MOE Explicit Core	Explain / Interpret
P3-W31-KP3	31	Interactions	Magnets	Magnetic push and pull	3	Distinguish contact push/pull from magnetic push/pull in a setup	Introduce	MOE Practice / Application	Apply / Analyse
P3-W31-KP4	31	Interactions	Magnets	Magnetic push and pull	4	Predict motion when a magnetic interaction changes	Introduce	MOE Transfer / Evaluation	Evaluate / Improve
P3-W32-KP1	32	Interactions	Magnets	Magnetic and non-magnetic materials	1	Identify iron and steel as magnetic materials	Develop	MOE Explicit Core	Know / Understand
P3-W32-KP2	32	Interactions	Magnets	Magnetic and non-magnetic materials	2	Distinguish a magnet from a magnetic material	Develop	MOE Explicit Core	Explain / Interpret
P3-W32-KP3	32	Interactions	Magnets	Magnetic and non-magnetic materials	3	Select and use a magnet appropriately to classify tested objects	Develop	MOE Practice / Application	Apply / Analyse
P3-W32-KP4	32	Interactions	Magnets	Magnetic and non-magnetic materials	4	Ask a new investigable question from the magnetic-test results	Develop	MOE Transfer / Evaluation	Evaluate / Improve
P3-W33-KP1	33	Interactions	Magnets	Poles and attraction	1	Identify that a magnet has two poles	Develop	MOE Explicit Core	Know / Understand
P3-W33-KP2	33	Interactions	Magnets	Poles and attraction	2	Recognise north and south poles as labels for magnet poles	Develop	MOE Explicit Core	Explain / Interpret
P3-W33-KP3	33	Interactions	Magnets	Poles and attraction	3	Predict that unlike poles attract	Develop	MOE Practice / Application	Apply / Analyse
P3-W33-KP4	33	Interactions	Magnets	Poles and attraction	4	Use attraction evidence carefully because magnets can also attract magnetic materials	Develop	MOE Transfer / Evaluation	Evaluate / Improve
P3-W34-KP1	34	Interactions	Magnets	Repulsion and identifying poles	1	Predict that like poles repel	Develop	MOE Explicit Core	Know / Understand
P3-W34-KP2	34	Interactions	Magnets	Repulsion and identifying poles	2	Recognise repulsion as evidence of magnet-to-magnet interaction	Develop	MOE Explicit Core	Explain / Interpret
P3-W34-KP3	34	Interactions	Magnets	Repulsion and identifying poles	3	Use a known pole to identify an unknown pole	Develop	MOE Practice / Application	Apply / Analyse
P3-W34-KP4	34	Interactions	Magnets	Repulsion and identifying poles	4	Explain attraction and repulsion using pole relationships	Develop	MOE Transfer / Evaluation	Evaluate / Improve
P3-W35-KP1	35	Interactions	Magnets	Freely suspended magnet	1	Recognise that a freely suspended bar magnet comes to rest in a north-south direction	Develop	MOE Explicit Core	Know / Understand

KP ID	Week	Theme	Topic	Weekly Focus	No.	Atomic Knowledge Point	Stage	Status	Cognitive Demand
P3-W35-KP2	35	Interactions	Magnets	Freely suspended magnet	2	Select a suitable suspension setup that allows the bar magnet to turn freely	Develop	MOE Explicit Core	Explain / Interpret
P3-W35-KP3	35	Interactions	Magnets	Freely suspended magnet	3	Distinguish direction finding from attraction to nearby materials	Develop	MOE Practice / Application	Apply / Analyse
P3-W35-KP4	35	Interactions	Magnets	Freely suspended magnet	4	Revise a direction model after interpreting repeated observations	Develop	MOE Transfer / Evaluation	Evaluate / Improve
P3-W36-KP1	36	Interactions	Magnets	Comparing magnetic strength	1	Compare magnet strength using a defined outcome such as number of identical clips lifted	Apply / Consolidate	MOE Explicit Core	Know / Understand
P3-W36-KP2	36	Interactions	Magnets	Comparing magnetic strength	2	Select suitable apparatus and identify the changed magnet in a fair comparison	Apply / Consolidate	MOE Explicit Core	Explain / Interpret
P3-W36-KP3	36	Interactions	Magnets	Comparing magnetic strength	3	Keep clip type and testing method the same	Apply / Consolidate	MOE Practice / Application	Apply / Analyse
P3-W36-KP4	36	Interactions	Magnets	Comparing magnetic strength	4	Use repeated table or bar-chart data to defend which magnet is stronger	Apply / Consolidate	MOE Transfer / Evaluation	Evaluate / Improve
P3-W37-KP1	37	Interactions	Magnets	Making a magnet by stroking	1	Recognise stroking as one method of making a magnet	Apply / Consolidate	MOE Explicit Core	Know / Understand
P3-W37-KP2	37	Interactions	Magnets	Making a magnet by stroking	2	Follow a repeated one-direction stroke model	Apply / Consolidate	MOE Explicit Core	Explain / Interpret
P3-W37-KP3	37	Interactions	Magnets	Making a magnet by stroking	3	Use a magnetic test before and after stroking	Apply / Consolidate	MOE Practice / Application	Apply / Analyse
P3-W37-KP4	37	Interactions	Magnets	Making a magnet by stroking	4	Evaluate evidence that the object became magnetised	Apply / Consolidate	MOE Transfer / Evaluation	Evaluate / Improve
P3-W38-KP1	38	Interactions	Magnets	Making a magnet by the electrical method	1	Recognise the electrical method as another way to make a magnet	Apply / Consolidate	MOE Explicit Core	Know / Understand
P3-W38-KP2	38	Interactions	Magnets	Making a magnet by the electrical method	2	Identify the coil, iron or steel object and electrical source in a simple setup	Apply / Consolidate	MOE Explicit Core	Explain / Interpret
P3-W38-KP3	38	Interactions	Magnets	Making a magnet by the electrical method	3	Use a before-and-after magnetic test	Apply / Consolidate	MOE Practice / Application	Apply / Analyse
P3-W38-KP4	38	Interactions	Magnets	Making a magnet by the electrical method	4	Follow safety instructions and avoid constructing circuits beyond the provided setup	Apply / Consolidate	MOE Transfer / Evaluation	Evaluate / Improve
P3-W39-KP1	39	Interactions	Magnets	Uses of magnets and design	1	Recognise uses of magnets in familiar everyday objects	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W39-KP2	39	Interactions	Magnets	Uses of magnets and design	2	Explain a use by linking it to attraction or repulsion	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W39-KP3	39	Interactions	Magnets	Uses of magnets and design	3	Generate and compare more than one workable magnetic design	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W39-KP4	39	Interactions	Magnets	Uses of magnets and design	4	Ask an investigable question that could improve the chosen design	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve
P3-W40-KP1	40	P3 Mastery	Cumulative transfer	Year-end mastery, inquiry and communication	1	Integrate classification, material properties, life cycles and magnets in one unfamiliar context	Master / Transfer	MOE Explicit Core	Know / Understand
P3-W40-KP2	40	P3 Mastery	Cumulative transfer	Year-end mastery, inquiry and communication	2	Interpret diagrams, tables, charts and observation records accurately	Master / Transfer	MOE Explicit Core	Explain / Interpret
P3-W40-KP3	40	P3 Mastery	Cumulative transfer	Year-end mastery, inquiry and communication	3	Defend the stronger of two competing claims using evidence	Master / Transfer	MOE Practice / Application	Apply / Analyse
P3-W40-KP4	40	P3 Mastery	Cumulative transfer	Year-end mastery, inquiry and communication	4	Revise an explanation or model and communicate one responsible action	Master / Transfer	MOE Transfer / Evaluation	Evaluate / Improve

3. Atomic KP Register - Assessment, Retrieval and Scope View

KP ID	Scientific Practice	Values / Attitudes	Suggested Evidence	Retrieval	Success Criteria	Vocabulary	Scope Boundary	Review
P3-W01-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: none; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately distinguish an observation from an inference, using relevant observation, data or model evidence	foundation, starting, science, observing, asking, questions, distinguish, observation, inference	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W01-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: none; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately record observations using accurate words or simple drawings, using relevant observation, data or model evidence	foundation, starting, science, observing, asking, questions, record, observations, accurate, words	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W01-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: none; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately ask a testable question about an observable object or event, using relevant observation, data or model evidence	foundation, starting, science, observing, asking, questions, ask, testable, question, about	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W01-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: none; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately communicate a claim supported by one piece of evidence, using relevant observation, data or model evidence	foundation, starting, science, observing, asking, questions, communicate, claim, supported, one	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W02-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W01 to W01; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise that living things need water to survive, using relevant observation, data or model evidence	living, non, things, characteristics, survival, needs, recognise, need, water, survive	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life	Verified against V7 compliance register
P3-W02-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W01 to W01; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise that living things need food to survive, using relevant observation, data or model evidence	living, non, things, characteristics, survival, needs, recognise, need, food, survive	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life	Verified against V7 compliance register
P3-W02-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W01 to W01; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise that living things need air to survive, using relevant observation, data or model evidence	living, non, things, characteristics, survival, needs, recognise, need, air, survive	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life	Verified against V7 compliance register
P3-W02-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W01 to W01; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately use survival needs as evidence when deciding whether something is living, using relevant observation, data or model evidence	living, non, things, characteristics, survival, needs, use, evidence, when, deciding	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life	Verified against V7 compliance register
P3-W03-KP1	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Short response	Recent: P3-W01 to W02; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise that living things grow, using relevant observation, data or model evidence	living, non, things, characteristics, life, processes, recognise, grow	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life	Verified against V7 compliance register
P3-W03-KP2	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W01 to W02; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise that living things respond to changes around them, using relevant observation, data or model evidence	living, non, things, characteristics, life, processes, recognise, respond, changes, around	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life	Verified against V7 compliance register
P3-W03-KP3	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W01 to W02; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise that living things reproduce, using relevant observation, data or model evidence	living, non, things, characteristics, life, processes, recognise, reproduce	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life	Verified against V7 compliance register
P3-W03-KP4	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W01 to W02; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately use more than one characteristic to justify that something is living, using relevant observation, data or model evidence	living, non, things, characteristics, life, processes, use, more, than, one	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life	Verified against V7 compliance register
P3-W04-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W02 to W03; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately classify clear examples as living or non-living, using relevant observation, data or model evidence	living, non, things, once, evidence, classify, clear, examples	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life	Verified against V7 compliance register
P3-W04-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W02 to W03; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise that a dead organism was once living, using relevant observation, data or model evidence	living, non, things, once, evidence, recognise, dead, organism, was	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life	Verified against V7 compliance register
P3-W04-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W02 to W03; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise that an object made from living material is not currently living, using relevant observation, data or model evidence	living, non, things, once, evidence, recognise, object, made, material, not	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life	Verified against V7 compliance register
P3-W04-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W02 to W03; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately explain a classification using observable evidence rather than appearance, using relevant observation, data or model evidence	living, non, things, once, evidence, explain, classification, observable, rather, than	P3 boundary: classify with observable evidence; avoid treating movement alone as proof of life	Verified against V7 compliance register
P3-W05-KP1	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Short response	Recent: P3-W03 to W04; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise that classification groups things by similarities and differences, using relevant observation, data or model evidence	classification, why, how, scientists, classify, recognise, groups, things, similarities, differences	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W05-KP2	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W03 to W04; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately choose a relevant observable characteristic for sorting, using relevant observation, data or model evidence	classification, why, how, scientists, classify, choose, relevant, observable, characteristic, sorting	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W05-KP3	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W03 to W04; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately apply one consistent classification rule to a set, using relevant observation, data or model evidence	classification, why, how, scientists, classify, apply, one, consistent, rule, set	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W05-KP4	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W03 to W04; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately check whether every item fits the stated rule, using relevant observation, data or model evidence	classification, why, how, scientists, classify, check, whether, every, item, fits	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W06-KP1	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Short response	Recent: P3-W04 to W05; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise plants as a broad group of living things, using relevant observation, data or model evidence	classification, plants, flowering, non, recognise, broad, group, living, things	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W06-KP2	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Diagram / table / graph response	Recent: P3-W04 to W05; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately classify familiar plants as flowering or non-flowering using observable evidence, using relevant observation, data or model evidence	classification, plants, flowering, non, classify, familiar, observable, evidence	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W06-KP3	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Constructed explanation	Recent: P3-W04 to W05; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately compare two plants using common observable characteristics, using relevant observation, data or model evidence	classification, plants, flowering, non, compare, two, common, observable, characteristics	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W06-KP4	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Method / model critique	Recent: P3-W04 to W05; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately ask a testable question about an observable difference between two plants, using relevant observation, data or model evidence	classification, plants, flowering, non, ask, testable, question, about, observable, difference	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W07-KP1	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Short response	Recent: P3-W05 to W06; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise mammals as a broad animal group, using relevant observation, data or model evidence	classification, animals, mammals, birds, fish, recognise, broad, animal, group	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W07-KP2	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Diagram / table / graph response	Recent: P3-W05 to W06; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise birds as a broad animal group, using relevant observation, data or model evidence	classification, animals, mammals, birds, fish, recognise, broad, animal, group	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W07-KP3	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Constructed explanation	Recent: P3-W05 to W06; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise fish as a broad animal group, using relevant observation, data or model evidence	classification, animals, mammals, birds, fish, recognise, broad, animal, group	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W07-KP4	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Method / model critique	Recent: P3-W05 to W06; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately classify familiar animals using common observable characteristics, using relevant observation, data or model evidence	classification, animals, mammals, birds, fish, classify, familiar, common, observable, characteristics	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W08-KP1	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Short response	Recent: P3-W06 to W07; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise reptiles as a broad animal group, using relevant observation, data or model evidence	classification, animals, reptiles, amphibians, insects, recognise, broad, animal, group	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W08-KP2	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Diagram / table / graph response	Recent: P3-W06 to W07; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise amphibians as a broad animal group, using relevant observation, data or model evidence	classification, animals, reptiles, amphibians, insects, recognise, broad, animal, group	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register

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P3-W08-KP3	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Constructed explanation	Recent: P3-W06 to W07; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately recognise insects as a broad animal group, using relevant observation, data or model evidence	classification, animals, reptiles, amphibians, insects, recognise, broad, animal, group	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W08-KP4	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Method / model critique	Recent: P3-W06 to W07; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Accurately distinguish the six P3 animal groups using relevant observable characteristics, using relevant observation, data or model evidence	classification, animals, reptiles, amphibians, insects, distinguish, six, animal, groups, relevant	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W09-KP1	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Short response	Recent: P3-W07 to W08; Spaced: P3-W01; Prerequisite: P2 inquiry readiness	Accurately recognise fungi as a broad group of living things, using relevant observation, data or model evidence	other, living, groups, fungi, bacteria, recognise, broad, group, things	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W09-KP2	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W07 to W08; Spaced: P3-W01; Prerequisite: P2 inquiry readiness	Accurately recognise mould, mushroom and yeast as examples of fungi, using relevant observation, data or model evidence	other, living, groups, fungi, bacteria, recognise, mould, mushroom, yeast, examples	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W09-KP3	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W07 to W08; Spaced: P3-W01; Prerequisite: P2 inquiry readiness	Accurately recognise bacteria as a broad group of living things, using relevant observation, data or model evidence	other, living, groups, fungi, bacteria, recognise, broad, group, things	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W09-KP4	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W07 to W08; Spaced: P3-W01; Prerequisite: P2 inquiry readiness	Accurately distinguish recognising fungi or bacteria from classifying plants and animals, using relevant observation, data or model evidence	other, living, groups, fungi, bacteria, distinguish, recognising, classifying, plants, animals	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W10-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W08 to W09; Spaced: P3-W02; Prerequisite: P2 inquiry readiness	Accurately classify living and non-living examples using multiple characteristics, using relevant observation, data or model evidence	term, mastery, diversity, integration, scientific, explanation, classify, living, non, examples	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W10-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W08 to W09; Spaced: P3-W02; Prerequisite: P2 inquiry readiness	Accurately classify plants and animals into appropriate broad groups, using relevant observation, data or model evidence	term, mastery, diversity, integration, scientific, explanation, classify, plants, animals, appropriate	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W10-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W08 to W09; Spaced: P3-W02; Prerequisite: P2 inquiry readiness	Accurately use a simple key to identify an unfamiliar organism, using relevant observation, data or model evidence	term, mastery, diversity, integration, scientific, explanation, use, simple, key, identify	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W10-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W08 to W09; Spaced: P3-W02; Prerequisite: P2 inquiry readiness	Accurately defend one classification and revise it if stronger observable evidence is provided, using relevant observation, data or model evidence	term, mastery, diversity, integration, scientific, explanation, defend, one, classification, revise	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W11-KP1	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Short response	Recent: P3-W09 to W10; Spaced: P3-W03; Prerequisite: P2 inquiry readiness	Accurately distinguish an object from the material used to make it, using relevant observation, data or model evidence	materials, objects, distinguish, object, material, used, make	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W11-KP2	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W09 to W10; Spaced: P3-W03; Prerequisite: P2 inquiry readiness	Accurately recognise ceramic, fabric, glass, metal, plastic, rubber and wood, using relevant observation, data or model evidence	materials, objects, recognise, ceramic, fabric, glass, metal, plastic, rubber, wood	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W11-KP3	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W09 to W10; Spaced: P3-W03; Prerequisite: P2 inquiry readiness	Accurately identify that one object may contain more than one material, using relevant observation, data or model evidence	materials, objects, identify, one, object, may, contain, more, than, material	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W11-KP4	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W09 to W10; Spaced: P3-W03; Prerequisite: P2 inquiry readiness	Accurately identify that the same material can be used for different objects, using relevant observation, data or model evidence	materials, objects, identify, same, material, can, used, different	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W12-KP1	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Short response	Recent: P3-W10 to W11; Spaced: P3-W04; Prerequisite: P2 inquiry readiness	Accurately describe strength as a material's ability to withstand a load without breaking, using relevant observation, data or model evidence	materials, strength, describe, material, ability, withstand, load, without, breaking	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W12-KP2	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W10 to W11; Spaced: P3-W04; Prerequisite: P2 inquiry readiness	Accurately compare materials fairly for strength, using relevant observation, data or model evidence	materials, strength, compare, fairly	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W12-KP3	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W10 to W11; Spaced: P3-W04; Prerequisite: P2 inquiry readiness	Accurately use results rather than appearance to identify the stronger material, using relevant observation, data or model evidence	materials, strength, use, results, rather, than, appearance, identify, stronger, material	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W12-KP4	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W10 to W11; Spaced: P3-W04; Prerequisite: P2 inquiry readiness	Accurately relate strength to a suitable everyday use, using relevant observation, data or model evidence	materials, strength, relate, suitable, everyday, use	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W13-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W11 to W12; Spaced: P3-W05; Prerequisite: P2 inquiry readiness	Accurately describe flexibility as the ability to bend without breaking, using relevant observation, data or model evidence	materials, flexibility, describe, ability, bend, without, breaking	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W13-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W11 to W12; Spaced: P3-W05; Prerequisite: P2 inquiry readiness	Accurately compare materials for flexibility using the same method, using relevant observation, data or model evidence	materials, flexibility, compare, same, method	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W13-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W11 to W12; Spaced: P3-W05; Prerequisite: P2 inquiry readiness	Accurately distinguish flexible from strong, using relevant observation, data or model evidence	materials, flexibility, distinguish, flexible, strong	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W13-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W11 to W12; Spaced: P3-W05; Prerequisite: P2 inquiry readiness	Accurately relate flexibility to a suitable everyday use, using relevant observation, data or model evidence	materials, flexibility, relate, suitable, everyday, use	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W14-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W12 to W13; Spaced: P3-W06; Prerequisite: P2 inquiry readiness	Accurately describe a waterproof material as one that does not absorb water, using relevant observation, data or model evidence	materials, waterproof, property, describe, material, one, does, not, absorb, water	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W14-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W12 to W13; Spaced: P3-W06; Prerequisite: P2 inquiry readiness	Accurately compare materials for waterproofness using equal amounts of water and equal observation time, using relevant observation, data or model evidence	materials, waterproof, property, compare, waterproofness, equal, amounts, water, observation, time	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W14-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W12 to W13; Spaced: P3-W06; Prerequisite: P2 inquiry readiness	Accurately use absorption observations as evidence when deciding whether a material is waterproof, using relevant observation, data or model evidence	materials, waterproof, property, use, absorption, observations, evidence, when, deciding, whether	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W14-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W12 to W13; Spaced: P3-W06; Prerequisite: P2 inquiry readiness	Accurately relate waterproofness to suitable uses, using relevant observation, data or model evidence	materials, waterproof, property, relate, waterproofness, suitable, uses	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W15-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W13 to W14; Spaced: P3-W07; Prerequisite: P2 inquiry readiness	Accurately describe a transparent material as allowing light to pass through so objects can be seen clearly, using relevant observation, data or model evidence	materials, transparency, describe, transparent, material, allowing, light, pass, through, objects	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W15-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W13 to W14; Spaced: P3-W07; Prerequisite: P2 inquiry readiness	Accurately compare materials for transparency, using relevant observation, data or model evidence	materials, transparency, compare	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W15-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W13 to W14; Spaced: P3-W07; Prerequisite: P2 inquiry readiness	Accurately distinguish transparency from being colourless, using relevant observation, data or model evidence	materials, transparency, distinguish, being, colourless	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W15-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W13 to W14; Spaced: P3-W07; Prerequisite: P2 inquiry readiness	Accurately relate transparency to suitable uses, using relevant observation, data or model evidence	materials, transparency, relate, suitable, uses	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W16-KP1	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Short response	Recent: P3-W14 to W15; Spaced: P3-W08; Prerequisite: P2 inquiry readiness	Accurately classify tested materials by whether they float or sink in water, using relevant observation, data or model evidence	materials, ability, float, sink, classify, tested, whether, they, water	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register

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P3-W16-KP2	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W14 to W15; Spaced: P3-W08; Prerequisite: P2 inquiry readiness	Accurately select and use suitable apparatus for a safe, fair float/sink comparison, using relevant observation, data or model evidence	materials, ability, float, sink, select, use, suitable, apparatus, safe, fair	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W16-KP3	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W14 to W15; Spaced: P3-W08; Prerequisite: P2 inquiry readiness	Accurately record floating and sinking observations accurately, using relevant observation, data or model evidence	materials, ability, float, sink, record, floating, sinking, observations, accurately	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W16-KP4	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W14 to W15; Spaced: P3-W08; Prerequisite: P2 inquiry readiness	Accurately avoid claiming that every object made of one material behaves identically regardless of design, using relevant observation, data or model evidence	materials, ability, float, sink, avoid, claiming, every, object, made, one	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W17-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W15 to W16; Spaced: P3-W09; Prerequisite: P2 inquiry readiness	Accurately identify the properties required for a stated object, using relevant observation, data or model evidence	materials, selecting, purpose, identify, properties, required, stated, object	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W17-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W15 to W16; Spaced: P3-W09; Prerequisite: P2 inquiry readiness	Accurately match a material to a use using relevant properties, using relevant observation, data or model evidence	materials, selecting, purpose, match, material, use, relevant, properties	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W17-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W15 to W16; Spaced: P3-W09; Prerequisite: P2 inquiry readiness	Accurately explain why one material is more suitable than another, using relevant observation, data or model evidence	materials, selecting, purpose, explain, why, one, material, more, suitable, than	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W17-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W15 to W16; Spaced: P3-W09; Prerequisite: P2 inquiry readiness	Accurately recognise that a useful object may require a combination of materials, using relevant observation, data or model evidence	materials, selecting, purpose, recognise, useful, object, may, require, combination	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W18-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W16 to W17; Spaced: P3-W10; Prerequisite: P2 inquiry readiness	Accurately compare materials using two or more properties, using relevant observation, data or model evidence	materials, multi, property, design, challenge, compare, two, more, properties	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W18-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W16 to W17; Spaced: P3-W10; Prerequisite: P2 inquiry readiness	Accurately prioritise properties for a specific purpose, using relevant observation, data or model evidence	materials, multi, property, design, challenge, prioritise, properties, specific, purpose	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W18-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W16 to W17; Spaced: P3-W10; Prerequisite: P2 inquiry readiness	Accurately use test data to justify a material choice, using relevant observation, data or model evidence	materials, multi, property, design, challenge, use, test, data, justify, material	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W18-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W16 to W17; Spaced: P3-W10; Prerequisite: P2 inquiry readiness	Accurately identify a trade-off when no material has every desired property, using relevant observation, data or model evidence	materials, multi, property, design, challenge, identify, trade, off, when, material	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W19-KP1	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Short response	Recent: P3-W17 to W18; Spaced: P3-W11; Prerequisite: P2 inquiry readiness	Accurately state the property being tested, using relevant observation, data or model evidence	materials, planning, evaluating, fair, material, test, state, property, being, tested	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W19-KP2	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W17 to W18; Spaced: P3-W11; Prerequisite: P2 inquiry readiness	Accurately identify what should be changed in a comparison, using relevant observation, data or model evidence	materials, planning, evaluating, fair, material, test, identify, what, should, changed	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W19-KP3	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W17 to W18; Spaced: P3-W11; Prerequisite: P2 inquiry readiness	Accurately select suitable apparatus and state what should be observed or measured, using relevant observation, data or model evidence	materials, planning, evaluating, fair, material, test, select, suitable, apparatus, state	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W19-KP4	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W17 to W18; Spaced: P3-W11; Prerequisite: P2 inquiry readiness	Accurately identify important conditions to keep the same and suggest one improvement, using relevant observation, data or model evidence	materials, planning, evaluating, fair, material, test, identify, important, conditions, keep	P3 boundary: describe observable properties; avoid particle-level explanations	Verified against V7 compliance register
P3-W20-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W18 to W19; Spaced: P3-W12; Prerequisite: P2 inquiry readiness	Accurately recognise the seven named material types in unfamiliar objects, using relevant observation, data or model evidence	term, mastery, materials, integration, transfer, recognise, seven, named, material, types	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W20-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W18 to W19; Spaced: P3-W12; Prerequisite: P2 inquiry readiness	Accurately compare materials across all five P3 physical properties, using relevant observation, data or model evidence	term, mastery, materials, integration, transfer, compare, across, all, five, physical	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W20-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W18 to W19; Spaced: P3-W12; Prerequisite: P2 inquiry readiness	Accurately select a material for a novel use using evidence, using relevant observation, data or model evidence	term, mastery, materials, integration, transfer, select, material, novel, use, evidence	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W20-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W18 to W19; Spaced: P3-W12; Prerequisite: P2 inquiry readiness	Accurately evaluate a claim about material suitability using test data, using relevant observation, data or model evidence	term, mastery, materials, integration, transfer, evaluate, claim, about, material, suitability	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W21-KP1	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Short response	Recent: P3-W19 to W20; Spaced: P3-W13; Prerequisite: P2 inquiry readiness	Accurately recognise a life cycle as repeated stages in the life of a living thing, using relevant observation, data or model evidence	life, cycles, what, makes, cycle, recognise, repeated, stages, living, thing	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W21-KP2	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W19 to W20; Spaced: P3-W13; Prerequisite: P2 inquiry readiness	Accurately sequence stages from young to adult, using relevant observation, data or model evidence	life, cycles, what, makes, cycle, sequence, stages, young, adult	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W21-KP3	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W19 to W20; Spaced: P3-W13; Prerequisite: P2 inquiry readiness	Accurately recognise that adults reproduce to begin a new cycle, using relevant observation, data or model evidence	life, cycles, what, makes, cycle, recognise, adults, reproduce, begin, new	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W21-KP4	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W19 to W20; Spaced: P3-W13; Prerequisite: P2 inquiry readiness	Accurately use a cycle diagram rather than a straight list when appropriate, using relevant observation, data or model evidence	life, cycles, what, makes, cycle, use, diagram, rather, than, straight	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W22-KP1	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Short response	Recent: P3-W20 to W21; Spaced: P3-W14; Prerequisite: P2 inquiry readiness	Accurately identify seed as a P3 flowering-plant life-cycle stage, using relevant observation, data or model evidence	plant, life, cycle, seed, young, adult, identify, flowering, stage	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W22-KP2	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Diagram / table / graph response	Recent: P3-W20 to W21; Spaced: P3-W14; Prerequisite: P2 inquiry readiness	Accurately identify young plant as a P3 life-cycle stage, using relevant observation, data or model evidence	plant, life, cycle, seed, young, adult, identify, stage	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W22-KP3	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Constructed explanation	Recent: P3-W20 to W21; Spaced: P3-W14; Prerequisite: P2 inquiry readiness	Accurately identify adult plant as a P3 life-cycle stage, using relevant observation, data or model evidence	plant, life, cycle, seed, young, adult, identify, stage	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W22-KP4	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Method / model critique	Recent: P3-W20 to W21; Spaced: P3-W14; Prerequisite: P2 inquiry readiness	Accurately arrange the three stages in a repeating cycle, using relevant observation, data or model evidence	plant, life, cycle, seed, young, adult, arrange, three, stages, repeating	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W23-KP1	Question; hypothesise; investigate; evaluate	Curiosity; responsibility; care and concern	Short response	Recent: P3-W21 to W22; Spaced: P3-W15; Prerequisite: P2 inquiry readiness	Accurately record dated observations of a plant grown from a seed, using relevant observation, data or model evidence	plant, life, cycle, observing, change, over, time, record, dated, observations	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W23-KP2	Question; hypothesise; investigate; evaluate	Curiosity; responsibility; care and concern	Diagram / table / graph response	Recent: P3-W21 to W22; Spaced: P3-W15; Prerequisite: P2 inquiry readiness	Accurately identify changes between consecutive observations, using relevant observation, data or model evidence	plant, life, cycle, observing, change, over, time, identify, changes, between	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W23-KP3	Question; hypothesise; investigate; evaluate	Curiosity; responsibility; care and concern	Constructed explanation	Recent: P3-W21 to W22; Spaced: P3-W15; Prerequisite: P2 inquiry readiness	Accurately select a suitable measuring tool and use drawings and simple measurements consistently, using relevant observation, data or model evidence	plant, life, cycle, observing, change, over, time, select, suitable, measuring	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W23-KP4	Question; hypothesise; investigate; evaluate	Curiosity; responsibility; care and concern	Method / model critique	Recent: P3-W21 to W22; Spaced: P3-W15; Prerequisite: P2 inquiry readiness	Accurately ask a new investigable question or predict the next stage from the observed pattern, using relevant observation, data or model evidence	plant, life, cycle, observing, change, over, time, ask, new, investigable	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register

KP ID	Scientific Practice	Values / Attitudes	Suggested Evidence	Retrieval	Success Criteria	Vocabulary	Scope Boundary	Review
P3-W24-KP1	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Short response	Recent: P3-W22 to W23; Spaced: P3-W16; Prerequisite: P2 inquiry readiness	Accurately compare stages in the life cycles of two flowering plants, using relevant observation, data or model evidence	plant, life, cycle, comparing, cycles, compare, stages, two, flowering, plants	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W24-KP2	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Diagram / table / graph response	Recent: P3-W22 to W23; Spaced: P3-W16; Prerequisite: P2 inquiry readiness	Accurately identify a shared seed-young plant-adult plant pattern, using relevant observation, data or model evidence	plant, life, cycle, comparing, cycles, identify, shared, seed, young, adult	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W24-KP3	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Constructed explanation	Recent: P3-W22 to W23; Spaced: P3-W16; Prerequisite: P2 inquiry readiness	Accurately identify observable differences without changing the core cycle, using relevant observation, data or model evidence	plant, life, cycle, comparing, cycles, identify, observable, differences, without, changing	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W24-KP4	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Method / model critique	Recent: P3-W22 to W23; Spaced: P3-W16; Prerequisite: P2 inquiry readiness	Accurately revise a plant life-cycle model when new observation evidence is provided, using relevant observation, data or model evidence	plant, life, cycle, comparing, cycles, revise, model, when, new, observation	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W25-KP1	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Short response	Recent: P3-W23 to W24; Spaced: P3-W17; Prerequisite: P2 inquiry readiness	Accurately sequence the observable stages in a chicken life-cycle diagram, using relevant observation, data or model evidence	animal, life, cycles, chicken, frog, sequence, observable, stages, cycle, diagram	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W25-KP2	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Diagram / table / graph response	Recent: P3-W23 to W24; Spaced: P3-W17; Prerequisite: P2 inquiry readiness	Accurately sequence the observable stages in a frog life-cycle diagram, including a froglet when shown, using relevant observation, data or model evidence	animal, life, cycles, chicken, frog, sequence, observable, stages, cycle, diagram	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W25-KP3	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Constructed explanation	Recent: P3-W23 to W24; Spaced: P3-W17; Prerequisite: P2 inquiry readiness	Accurately compare the young and adult forms of chicken and frog using observable evidence, using relevant observation, data or model evidence	animal, life, cycles, chicken, frog, compare, young, adult, forms, observable	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W25-KP4	Interpret; analyse; communicate	Curiosity; responsibility; care and concern	Method / model critique	Recent: P3-W23 to W24; Spaced: P3-W17; Prerequisite: P2 inquiry readiness	Accurately recognise that the number and names of stages depend on the organism and the diagram provided, using relevant observation, data or model evidence	animal, life, cycles, chicken, frog, recognise, number, names, stages, depend	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W26-KP1	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Short response	Recent: P3-W24 to W25; Spaced: P3-W18; Prerequisite: P2 inquiry readiness	Accurately sequence egg, nymph and adult stages for a cockroach, using relevant observation, data or model evidence	animal, life, cycles, incomplete, metamorphosis, examples, sequence, egg, nymph, adult	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W26-KP2	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Diagram / table / graph response	Recent: P3-W24 to W25; Spaced: P3-W18; Prerequisite: P2 inquiry readiness	Accurately sequence egg, nymph and adult stages for a grasshopper, using relevant observation, data or model evidence	animal, life, cycles, incomplete, metamorphosis, examples, sequence, egg, nymph, adult	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W26-KP3	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Constructed explanation	Recent: P3-W24 to W25; Spaced: P3-W18; Prerequisite: P2 inquiry readiness	Accurately compare a nymph with its adult using observable features, using relevant observation, data or model evidence	animal, life, cycles, incomplete, metamorphosis, examples, compare, nymph, its, adult	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W26-KP4	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Method / model critique	Recent: P3-W24 to W25; Spaced: P3-W18; Prerequisite: P2 inquiry readiness	Accurately recognise the three-stage pattern in cockroach and grasshopper life cycles, using relevant observation, data or model evidence	animal, life, cycles, incomplete, metamorphosis, examples, recognise, three, stage, pattern	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W27-KP1	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Short response	Recent: P3-W25 to W26; Spaced: P3-W19; Prerequisite: P2 inquiry readiness	Accurately sequence egg, larva, pupa and adult stages for a butterfly, using relevant observation, data or model evidence	animal, life, cycles, complete, metamorphosis, butterfly, beetle, sequence, egg, larva	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W27-KP2	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Diagram / table / graph response	Recent: P3-W25 to W26; Spaced: P3-W19; Prerequisite: P2 inquiry readiness	Accurately sequence egg, larva, pupa and adult stages for a beetle, using relevant observation, data or model evidence	animal, life, cycles, complete, metamorphosis, butterfly, beetle, sequence, egg, larva	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W27-KP3	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Constructed explanation	Recent: P3-W25 to W26; Spaced: P3-W19; Prerequisite: P2 inquiry readiness	Accurately recognise larva and pupa as distinct stages, using relevant observation, data or model evidence	animal, life, cycles, complete, metamorphosis, butterfly, beetle, recognise, larva, pupa	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W27-KP4	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Method / model critique	Recent: P3-W25 to W26; Spaced: P3-W19; Prerequisite: P2 inquiry readiness	Accurately compare butterfly and beetle life cycles using the four-stage pattern, using relevant observation, data or model evidence	animal, life, cycles, complete, metamorphosis, butterfly, beetle, compare, four, stage	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W28-KP1	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Short response	Recent: P3-W26 to W27; Spaced: P3-W20; Prerequisite: P2 inquiry readiness	Accurately sequence egg, larva, pupa and adult stages for a mosquito, using relevant observation, data or model evidence	animal, life, cycles, complete, metamorphosis, mosquito, sequence, egg, larva, pupa	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W28-KP2	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Diagram / table / graph response	Recent: P3-W26 to W27; Spaced: P3-W20; Prerequisite: P2 inquiry readiness	Accurately identify that mosquito larvae and pupae live in water, using relevant observation, data or model evidence	animal, life, cycles, complete, metamorphosis, mosquito, identify, larvae, pupae, live	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W28-KP3	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Constructed explanation	Recent: P3-W26 to W27; Spaced: P3-W20; Prerequisite: P2 inquiry readiness	Accurately compare the mosquito cycle with another four-stage animal cycle, using relevant observation, data or model evidence	animal, life, cycles, complete, metamorphosis, mosquito, compare, cycle, another, four	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W28-KP4	Observe; infer; explain; apply	Curiosity; responsibility; care and concern	Method / model critique	Recent: P3-W26 to W27; Spaced: P3-W20; Prerequisite: P2 inquiry readiness	Accurately relate removal of stagnant water to interruption of the mosquito life cycle, using relevant observation, data or model evidence	animal, life, cycles, complete, metamorphosis, mosquito, relate, removal, stagnant, water	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W29-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W27 to W28; Spaced: P3-W21; Prerequisite: P2 inquiry readiness	Accurately compare plant and animal life cycles for repeated stages and growth, using relevant observation, data or model evidence	life, cycle, comparison, comparing, across, plants, animals, compare, plant, animal	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W29-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W27 to W28; Spaced: P3-W21; Prerequisite: P2 inquiry readiness	Accurately compare the number, names and observable features of stages shown in different animal cycles, using relevant observation, data or model evidence	life, cycle, comparison, comparing, across, plants, animals, compare, number, names	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W29-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W27 to W28; Spaced: P3-W21; Prerequisite: P2 inquiry readiness	Accurately use stage evidence to identify an unknown life cycle, using relevant observation, data or model evidence	life, cycle, comparison, comparing, across, plants, animals, use, stage, evidence	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W29-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W27 to W28; Spaced: P3-W21; Prerequisite: P2 inquiry readiness	Accurately predict a missing stage in a cycle diagram, using relevant observation, data or model evidence	life, cycle, comparison, comparing, across, plants, animals, predict, missing, stage	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W30-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W28 to W29; Spaced: P3-W22; Prerequisite: P2 inquiry readiness	Accurately interpret unfamiliar plant or animal life-cycle diagrams, using relevant observation, data or model evidence	term, mastery, life, cycle, inquiry, boundaries, interpret, unfamiliar, plant, animal	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W30-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W28 to W29; Spaced: P3-W22; Prerequisite: P2 inquiry readiness	Accurately explain one similarity and one difference between two cycles, using relevant observation, data or model evidence	term, mastery, life, cycle, inquiry, boundaries, explain, one, similarity, difference	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W30-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W28 to W29; Spaced: P3-W22; Prerequisite: P2 inquiry readiness	Accurately evaluate whether a proposed sequence is supported by evidence, using relevant observation, data or model evidence	term, mastery, life, cycle, inquiry, boundaries, evaluate, whether, proposed, sequence	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W30-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W28 to W29; Spaced: P3-W22; Prerequisite: P2 inquiry readiness	Accurately keep P3 explanations within observable life-cycle stages without requiring P5 reproduction processes, using relevant observation, data or model evidence	term, mastery, life, cycle, inquiry, boundaries, keep, explanations, within, observable	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W31-KP1	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Short response	Recent: P3-W29 to W30; Spaced: P3-W23; Prerequisite: P2 inquiry readiness	Accurately recognise that a magnet can exert a push, using relevant observation, data or model evidence	magnets, magnetic, push, pull, recognise, magnet, can, exert	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W31-KP2	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W29 to W30; Spaced: P3-W23; Prerequisite: P2 inquiry readiness	Accurately recognise that a magnet can exert a pull, using relevant observation, data or model evidence	magnets, magnetic, push, pull, recognise, magnet, can, exert	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W31-KP3	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W29 to W30; Spaced: P3-W23; Prerequisite: P2 inquiry readiness	Accurately distinguish contact push/pull from magnetic push/pull in a setup, using relevant observation, data or model evidence	magnets, magnetic, push, pull, distinguish, contact, setup	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register

KP ID	Scientific Practice	Values / Attitudes	Suggested Evidence	Retrieval	Success Criteria	Vocabulary	Scope Boundary	Review
P3-W31-KP4	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W29 to W30; Spaced: P3-W23; Prerequisite: P2 inquiry readiness	Accurately predict motion when a magnetic interaction changes, using relevant observation, data or model evidence	magnets, magnetic, push, pull, predict, motion, when, interaction, changes	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W32-KP1	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Short response	Recent: P3-W30 to W31; Spaced: P3-W24; Prerequisite: P2 inquiry readiness	Accurately identify iron and steel as magnetic materials, using relevant observation, data or model evidence	magnets, magnetic, non, materials, identify, iron, steel	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W32-KP2	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W30 to W31; Spaced: P3-W24; Prerequisite: P2 inquiry readiness	Accurately distinguish a magnet from a magnetic material, using relevant observation, data or model evidence	magnets, magnetic, non, materials, distinguish, magnet, material	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W32-KP3	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W30 to W31; Spaced: P3-W24; Prerequisite: P2 inquiry readiness	Accurately select and use a magnet appropriately to classify tested objects, using relevant observation, data or model evidence	magnets, magnetic, non, materials, select, use, magnet, appropriately, classify, tested	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W32-KP4	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W30 to W31; Spaced: P3-W24; Prerequisite: P2 inquiry readiness	Accurately ask a new investigable question from the magnetic-test results, using relevant observation, data or model evidence	magnets, magnetic, non, materials, ask, new, investigable, question, test, results	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W33-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W31 to W32; Spaced: P3-W25; Prerequisite: P2 inquiry readiness	Accurately identify that a magnet has two poles, using relevant observation, data or model evidence	magnets, poles, attraction, identify, magnet, has, two	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W33-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W31 to W32; Spaced: P3-W25; Prerequisite: P2 inquiry readiness	Accurately recognise north and south poles as labels for magnet poles, using relevant observation, data or model evidence	magnets, poles, attraction, recognise, north, south, labels, magnet	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W33-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W31 to W32; Spaced: P3-W25; Prerequisite: P2 inquiry readiness	Accurately predict that unlike poles attract, using relevant observation, data or model evidence	magnets, poles, attraction, predict, unlike, attract	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W33-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W31 to W32; Spaced: P3-W25; Prerequisite: P2 inquiry readiness	Accurately use attraction evidence carefully because magnets can also attract magnetic materials, using relevant observation, data or model evidence	magnets, poles, attraction, use, evidence, carefully, because, can, also, attract	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W34-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W32 to W33; Spaced: P3-W26; Prerequisite: P2 inquiry readiness	Accurately predict that like poles repel, using relevant observation, data or model evidence	magnets, repulsion, identifying, poles, predict, like, repel	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W34-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W32 to W33; Spaced: P3-W26; Prerequisite: P2 inquiry readiness	Accurately recognise repulsion as evidence of magnet-to-magnet interaction, using relevant observation, data or model evidence	magnets, repulsion, identifying, poles, recognise, evidence, magnet, interaction	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W34-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W32 to W33; Spaced: P3-W26; Prerequisite: P2 inquiry readiness	Accurately use a known pole to identify an unknown pole, using relevant observation, data or model evidence	magnets, repulsion, identifying, poles, use, known, pole, identify, unknown	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W34-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W32 to W33; Spaced: P3-W26; Prerequisite: P2 inquiry readiness	Accurately explain attraction and repulsion using pole relationships, using relevant observation, data or model evidence	magnets, repulsion, identifying, poles, explain, attraction, pole, relationships	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W35-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W33 to W34; Spaced: P3-W27; Prerequisite: P2 inquiry readiness	Accurately recognise that a freely suspended bar magnet comes to rest in a north-south direction, using relevant observation, data or model evidence	magnets, freely, suspended, magnet, recognise, bar, comes, rest, north, south	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W35-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W33 to W34; Spaced: P3-W27; Prerequisite: P2 inquiry readiness	Accurately select a suitable suspension setup that allows the bar magnet to turn freely, using relevant observation, data or model evidence	magnets, freely, suspended, magnet, select, suitable, suspension, setup, allows, bar	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W35-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W33 to W34; Spaced: P3-W27; Prerequisite: P2 inquiry readiness	Accurately distinguish direction finding from attraction to nearby materials, using relevant observation, data or model evidence	magnets, freely, suspended, magnet, distinguish, direction, finding, attraction, nearby, materials	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W35-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W33 to W34; Spaced: P3-W27; Prerequisite: P2 inquiry readiness	Accurately revise a direction model after interpreting repeated observations, using relevant observation, data or model evidence	magnets, freely, suspended, magnet, revise, direction, model, after, interpreting, repeated	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W36-KP1	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Short response	Recent: P3-W34 to W35; Spaced: P3-W28; Prerequisite: P2 inquiry readiness	Accurately compare magnet strength using a defined outcome such as number of identical clips lifted, using relevant observation, data or model evidence	magnets, comparing, magnetic, strength, compare, magnet, defined, outcome, such, number	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W36-KP2	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W34 to W35; Spaced: P3-W28; Prerequisite: P2 inquiry readiness	Accurately select suitable apparatus and identify the changed magnet in a fair comparison, using relevant observation, data or model evidence	magnets, comparing, magnetic, strength, select, suitable, apparatus, identify, changed, magnet	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W36-KP3	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W34 to W35; Spaced: P3-W28; Prerequisite: P2 inquiry readiness	Accurately keep clip type and testing method the same, using relevant observation, data or model evidence	magnets, comparing, magnetic, strength, keep, clip, type, testing, method, same	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W36-KP4	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W34 to W35; Spaced: P3-W28; Prerequisite: P2 inquiry readiness	Accurately use repeated table or bar-chart data to defend which magnet is stronger, using relevant observation, data or model evidence	magnets, comparing, magnetic, strength, use, repeated, table, bar, chart, data	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W37-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W35 to W36; Spaced: P3-W29; Prerequisite: P2 inquiry readiness	Accurately recognise stroking as one method of making a magnet, using relevant observation, data or model evidence	magnets, making, magnet, stroking, recognise, one, method	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W37-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W35 to W36; Spaced: P3-W29; Prerequisite: P2 inquiry readiness	Accurately follow a repeated one-direction stroke model, using relevant observation, data or model evidence	magnets, making, magnet, stroking, follow, repeated, one, direction, stroke, model	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W37-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W35 to W36; Spaced: P3-W29; Prerequisite: P2 inquiry readiness	Accurately use a magnetic test before and after stroking, using relevant observation, data or model evidence	magnets, making, magnet, stroking, use, magnetic, test, before, after	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W37-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W35 to W36; Spaced: P3-W29; Prerequisite: P2 inquiry readiness	Accurately evaluate evidence that the object became magnetised, using relevant observation, data or model evidence	magnets, making, magnet, stroking, evaluate, evidence, object, became, magnetised	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W38-KP1	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Short response	Recent: P3-W36 to W37; Spaced: P3-W30; Prerequisite: P2 inquiry readiness	Accurately recognise the electrical method as another way to make a magnet, using relevant observation, data or model evidence	magnets, making, magnet, electrical, method, recognise, another, way, make	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W38-KP2	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W36 to W37; Spaced: P3-W30; Prerequisite: P2 inquiry readiness	Accurately identify the coil, iron or steel object and electrical source in a simple setup, using relevant observation, data or model evidence	magnets, making, magnet, electrical, method, identify, coil, iron, steel, object	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W38-KP3	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W36 to W37; Spaced: P3-W30; Prerequisite: P2 inquiry readiness	Accurately use a before-and-after magnetic test, using relevant observation, data or model evidence	magnets, making, magnet, electrical, method, use, before, after, magnetic, test	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W38-KP4	Observe; infer; explain; apply	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W36 to W37; Spaced: P3-W30; Prerequisite: P2 inquiry readiness	Accurately follow safety instructions and avoid constructing circuits beyond the provided setup, using relevant observation, data or model evidence	magnets, making, magnet, electrical, method, follow, safety, instructions, avoid, constructing	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W39-KP1	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Short response	Recent: P3-W37 to W38; Spaced: P3-W31; Prerequisite: P2 inquiry readiness	Accurately recognise uses of magnets in familiar everyday objects, using relevant observation, data or model evidence	magnets, uses, design, recognise, familiar, everyday, objects	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W39-KP2	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W37 to W38; Spaced: P3-W31; Prerequisite: P2 inquiry readiness	Accurately explain a use by linking it to attraction or repulsion, using relevant observation, data or model evidence	magnets, uses, design, explain, use, linking, attraction, repulsion	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register

KP ID	Scientific Practice	Values / Attitudes	Suggested Evidence	Retrieval	Success Criteria	Vocabulary	Scope Boundary	Review
P3-W39-KP3	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W37 to W38; Spaced: P3-W31; Prerequisite: P2 inquiry readiness	Accurately generate and compare more than one workable magnetic design, using relevant observation, data or model evidence	magnets, uses, design, generate, compare, more, than, one, workable, magnetic	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W39-KP4	Question; hypothesise; investigate; evaluate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W37 to W38; Spaced: P3-W31; Prerequisite: P2 inquiry readiness	Accurately ask an investigable question that could improve the chosen design, using relevant observation, data or model evidence	magnets, uses, design, ask, investigable, question, could, improve, chosen	P3 boundary: nickel/cobalt recall, magnetic shielding and magnetic induction are not required	Verified against V7 compliance register
P3-W40-KP1	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Short response	Recent: P3-W38 to W39; Spaced: P3-W32; Prerequisite: P2 inquiry readiness	Accurately integrate classification, material properties, life cycles and magnets in one unfamiliar context, using relevant observation, data or model evidence	cumulative, transfer, year, end, mastery, inquiry, communication, integrate, classification, material	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W40-KP2	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Diagram / table / graph response	Recent: P3-W38 to W39; Spaced: P3-W32; Prerequisite: P2 inquiry readiness	Accurately interpret diagrams, tables, charts and observation records accurately, using relevant observation, data or model evidence	cumulative, transfer, year, end, mastery, inquiry, communication, interpret, diagrams, tables	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W40-KP3	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Constructed explanation	Recent: P3-W38 to W39; Spaced: P3-W32; Prerequisite: P2 inquiry readiness	Accurately defend the stronger of two competing claims using evidence, using relevant observation, data or model evidence	cumulative, transfer, year, end, mastery, inquiry, communication, defend, stronger, two	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register
P3-W40-KP4	Interpret; analyse; communicate	Curiosity; objectivity; integrity	Method / model critique	Recent: P3-W38 to W39; Spaced: P3-W32; Prerequisite: P2 inquiry readiness	Accurately revise an explanation or model and communicate one responsible action, using relevant observation, data or model evidence	cumulative, transfer, year, end, mastery, inquiry, communication, revise, explanation, model	P3 boundary: use observable evidence; avoid unexplained microscopic or secondary-level mechanisms	Verified against V7 compliance register

4. Vertical Progression

Theme / Dimension	Prior prerequisite	Current-level learning	Next-level bridge	Progression logic
Diversity	P2 inquiry and everyday-experience readiness	Living/non-living; classification; materials	Retrieve characteristics and evidence rules	Observable classification -> functional and ecological reasoning
Cycles	P2 inquiry and everyday-experience readiness	Life cycles	Retrieve life cycles only	Sequence -> mechanism -> system consequence
Cycles	P2 inquiry and everyday-experience readiness	Life cycles of plants and animals	Matter: mass, volume and three states	Observable cycles and states -> continuity and water cycling -> transfer
Interactions	P2 inquiry and everyday-experience readiness	Magnets	Light and heat phenomena	Direct effects -> interacting factors and causal chains
Energy	P2 inquiry and everyday-experience readiness	Informal effects only	Light and heat	Observable effects -> functional systems -> energy acquisition and conversion
Practices	P2 inquiry and everyday-experience readiness	Observe, classify, infer	Fair tests, diagrams, tables, simple graphs	Increasing independence and evidence quality

5. Spiral Retrieval Map

Level	Level Week	Continuum Week	Theme	Current Topic	Current Focus	Named Retrieval	Practice Link	Learning Stage	Checkpoint Form	Follow-up
P3	1	1	Science as Inquiry	Foundation	Starting Science: observing and asking questions	Recent: none; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Master / Transfer	Short retrieval	Record weak KP ID and schedule retrieval
P3	2	2	Diversity	Living and non-living things	Characteristics of living things: survival needs	Recent: P3-W01 to W01; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Introduce	Short retrieval	Record weak KP ID and schedule retrieval
P3	3	3	Diversity	Living and non-living things	Characteristics of living things: life processes	Recent: P3-W01 to W02; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Observe; infer; explain; apply	Develop	Short retrieval	Record weak KP ID and schedule retrieval
P3	4	4	Diversity	Living and non-living things	Living, non-living and once-living evidence	Recent: P3-W02 to W03; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Master / Transfer	Short retrieval	Record weak KP ID and schedule retrieval
P3	5	5	Diversity	Classification	Why and how scientists classify	Recent: P3-W03 to W04; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Observe; infer; explain; apply	Master / Transfer	Transfer checkpoint	Record weak KP ID and schedule retrieval
P3	6	6	Diversity	Classification of plants	Flowering and non-flowering plants	Recent: P3-W04 to W05; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Master / Transfer	Short retrieval	Record weak KP ID and schedule retrieval
P3	7	7	Diversity	Classification of animals	Mammals, birds and fish	Recent: P3-W05 to W06; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Observe; infer; explain; apply	Introduce	Short retrieval	Record weak KP ID and schedule retrieval
P3	8	8	Diversity	Classification of animals	Reptiles, amphibians and insects	Recent: P3-W06 to W07; Spaced: first-term build; Prerequisite: P2 inquiry readiness	Observe; infer; explain; apply	Master / Transfer	Short retrieval	Record weak KP ID and schedule retrieval
P3	9	9	Diversity	Other living groups	Fungi and bacteria	Recent: P3-W07 to W08; Spaced: P3-W01; Prerequisite: P2 inquiry readiness	Observe; infer; explain; apply	Master / Transfer	Short retrieval	Record weak KP ID and schedule retrieval
P3	10	10	Diversity	Term 1 Mastery	Diversity integration and scientific explanation	Recent: P3-W08 to W09; Spaced: P3-W02; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Master / Transfer	Cumulative mastery and error analysis	Reassess named KP IDs within 2-4 weeks
P3	11	11	Diversity	Materials	Materials and objects	Recent: P3-W09 to W10; Spaced: P3-W03; Prerequisite: P2 inquiry readiness	Observe; infer; explain; apply	Introduce	Short retrieval	Record weak KP ID and schedule retrieval
P3	12	12	Diversity	Materials	Strength	Recent: P3-W10 to W11; Spaced: P3-W04; Prerequisite: P2 inquiry readiness	Question; hypothesise; investigate; evaluate	Develop	Short retrieval	Record weak KP ID and schedule retrieval
P3	13	13	Diversity	Materials	Flexibility	Recent: P3-W11 to W12; Spaced: P3-W05; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Develop	Short retrieval	Record weak KP ID and schedule retrieval
P3	14	14	Diversity	Materials	Waterproof property	Recent: P3-W12 to W13; Spaced: P3-W06; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Develop	Short retrieval	Record weak KP ID and schedule retrieval
P3	15	15	Diversity	Materials	Transparency	Recent: P3-W13 to W14; Spaced: P3-W07; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Develop	Transfer checkpoint	Record weak KP ID and schedule retrieval
P3	16	16	Diversity	Materials	Ability to float or sink	Recent: P3-W14 to W15; Spaced: P3-W08; Prerequisite: P2 inquiry readiness	Question; hypothesise; investigate; evaluate	Apply / Consolidate	Short retrieval	Record weak KP ID and schedule retrieval
P3	17	17	Diversity	Materials	Selecting materials for a purpose	Recent: P3-W15 to W16; Spaced: P3-W09; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Apply / Consolidate	Short retrieval	Record weak KP ID and schedule retrieval
P3	18	18	Diversity	Materials	Multi-property design challenge	Recent: P3-W16 to W17; Spaced: P3-W10; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Apply / Consolidate	Short retrieval	Record weak KP ID and schedule retrieval
P3	19	19	Diversity	Materials	Planning and evaluating a fair material test	Recent: P3-W17 to W18; Spaced: P3-W11; Prerequisite: P2 inquiry readiness	Question; hypothesise; investigate; evaluate	Master / Transfer	Short retrieval	Record weak KP ID and schedule retrieval
P3	20	20	Diversity	Term 2 Mastery	Materials integration and transfer	Recent: P3-W18 to W19; Spaced: P3-W12; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Master / Transfer	Cumulative mastery and error analysis	Reassess named KP IDs within 2-4 weeks
P3	21	21	Cycles	Life cycles	What makes a life cycle	Recent: P3-W19 to W20; Spaced: P3-W13; Prerequisite: P2 inquiry readiness	Observe; infer; explain; apply	Master / Transfer	Short retrieval	Record weak KP ID and schedule retrieval
P3	22	22	Cycles	Plant life cycle	Seed, young plant and adult plant	Recent: P3-W20 to W21; Spaced: P3-W14; Prerequisite: P2 inquiry readiness	Observe; infer; explain; apply	Introduce	Short retrieval	Record weak KP ID and schedule retrieval
P3	23	23	Cycles	Plant life cycle	Observing plant change over time	Recent: P3-W21 to W22; Spaced: P3-W15; Prerequisite: P2 inquiry readiness	Question; hypothesise; investigate; evaluate	Develop	Short retrieval	Record weak KP ID and schedule retrieval
P3	24	24	Cycles	Plant life cycle	Comparing plant life cycles	Recent: P3-W22 to W23; Spaced: P3-W16; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Master / Transfer	Short retrieval	Record weak KP ID and schedule retrieval
P3	25	25	Cycles	Animal life cycles	Life cycles of chicken and frog	Recent: P3-W23 to W24; Spaced: P3-W17; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Introduce	Transfer checkpoint	Record weak KP ID and schedule retrieval
P3	26	26	Cycles	Animal life cycles	Incomplete metamorphosis examples	Recent: P3-W24 to W25; Spaced: P3-W18; Prerequisite: P2 inquiry readiness	Observe; infer; explain; apply	Develop	Short retrieval	Record weak KP ID and schedule retrieval
P3	27	27	Cycles	Animal life cycles	Complete metamorphosis: butterfly and beetle	Recent: P3-W25 to W26; Spaced: P3-W19; Prerequisite: P2 inquiry readiness	Observe; infer; explain; apply	Apply / Consolidate	Short retrieval	Record weak KP ID and schedule retrieval
P3	28	28	Cycles	Animal life cycles	Complete metamorphosis: mosquito	Recent: P3-W26 to W27; Spaced: P3-W20; Prerequisite: P2 inquiry readiness	Observe; infer; explain; apply	Master / Transfer	Short retrieval	Record weak KP ID and schedule retrieval
P3	29	29	Cycles	Life-cycle comparison	Comparing across plants and animals	Recent: P3-W27 to W28; Spaced: P3-W21; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Master / Transfer	Short retrieval	Record weak KP ID and schedule retrieval
P3	30	30	Cycles	Term 3 Mastery	Life-cycle inquiry and boundaries	Recent: P3-W28 to W29; Spaced: P3-W22; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Master / Transfer	Cumulative mastery and error analysis	Reassess named KP IDs within 2-4 weeks
P3	31	31	Interactions	Magnets	Magnetic push and pull	Recent: P3-W29 to W30; Spaced: P3-W23; Prerequisite: P2 inquiry readiness	Observe; infer; explain; apply	Introduce	Short retrieval	Record weak KP ID and schedule retrieval
P3	32	32	Interactions	Magnets	Magnetic and non-magnetic materials	Recent: P3-W30 to W31; Spaced: P3-W24; Prerequisite: P2 inquiry readiness	Question; hypothesise; investigate; evaluate	Develop	Short retrieval	Record weak KP ID and schedule retrieval
P3	33	33	Interactions	Magnets	Poles and attraction	Recent: P3-W31 to W32; Spaced: P3-W25; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Develop	Short retrieval	Record weak KP ID and schedule retrieval
P3	34	34	Interactions	Magnets	Repulsion and identifying poles	Recent: P3-W32 to W33; Spaced: P3-W26; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Develop	Short retrieval	Record weak KP ID and schedule retrieval
P3	35	35	Interactions	Magnets	Freely suspended magnet	Recent: P3-W33 to W34; Spaced: P3-W27; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Develop	Transfer checkpoint	Record weak KP ID and schedule retrieval
P3	36	36	Interactions	Magnets	Comparing magnetic strength	Recent: P3-W34 to W35; Spaced: P3-W28; Prerequisite: P2 inquiry readiness	Question; hypothesise; investigate; evaluate	Apply / Consolidate	Short retrieval	Record weak KP ID and schedule retrieval
P3	37	37	Interactions	Magnets	Making a magnet by stroking	Recent: P3-W35 to W36; Spaced: P3-W29; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Apply / Consolidate	Short retrieval	Record weak KP ID and schedule retrieval

Level	Level Week	Continuum Week	Theme	Current Topic	Current Focus	Named Retrieval	Practice Link	Learning Stage	Checkpoint Form	Follow-up
P3	38	38	Interactions	Magnets	Making a magnet by the electrical method	Recent: P3-W36 to W37; Spaced: P3-W30; Prerequisite: P2 inquiry readiness	Observe; infer; explain; apply	Apply / Consolidate	Short retrieval	Record weak KP ID and schedule retrieval
P3	39	39	Interactions	Magnets	Uses of magnets and design	Recent: P3-W37 to W38; Spaced: P3-W31; Prerequisite: P2 inquiry readiness	Question; hypothesise; investigate; evaluate	Master / Transfer	Short retrieval	Record weak KP ID and schedule retrieval
P3	40	40	P3 Mastery	Cumulative transfer	Year-end mastery, inquiry and communication	Recent: P3-W38 to W39; Spaced: P3-W32; Prerequisite: P2 inquiry readiness	Interpret; analyse; communicate	Master / Transfer	Cumulative mastery and error analysis	Reassess named KP IDs within 2-4 weeks

6. MOE Coverage Audit

Level	Theme	MOE Topic / Outcome Block	First KP	Last KP	Status	Scope / Evidence Note
P3	Diversity	Living things need air, food and water; respond, grow and reproduce	P3-W02-KP1	P3-W03-KP4	Covered	Outcome-level mapping; observable evidence
P3	Diversity	Classify living things and materials using observable characteristics	P3-W04-KP1	P3-W20-KP4	Covered	Includes plants, animals, fungi, bacteria and material properties
P3	Cycles	Plant and animal life cycles; similarities, differences and repeating stages	P3-W21-KP1	P3-W30-KP4	Covered	Diagrams, observations and comparison
P3	Interactions	Magnet push/pull, poles, attraction/repulsion, materials and uses	P3-W31-KP1	P3-W38-KP4	Covered	Nickel/cobalt recall, shielding and induction protected
P3	Interactions	Compare materials and make magnets by stroke/electrical methods	P3-W35-KP1	P3-W40-KP4	Covered	Practice and application mapped

7. Assessment Blueprint

Rule	Requirement	Audit Check
Knowledge mix	65% current / 20% recent / 15% spaced	Name every source KP ID
Visual/data	At least 30% of marks	Use answer-relevant diagrams, tables, graphs, models or setups
Constructed response	At least 40% of marks	Require explaining, predicting, justifying, critiquing or improving
Scientific inquiry	At least two practices per paper	Include variables, fair test, data or method evaluation
Advanced demand	Depth without premature content	Use unfamiliar contexts, competing evidence and model revision
Mastery	Internal guide: 80%+ secure; 60-79% developing; below 60% reteach	Judge relevant core KPs, not total score only
Follow-up	Retrieve weak KP in 2-4 weeks	Use matched but non-identical evidence
Scope	Later-level content is not required early	Extensions must be labelled and never replace core mastery

8. Sources and Governance

Type	Source / Rule	URL / Basis	Use	Status
Primary official source	MOE Science Teaching & Learning Syllabus, Primary (2023)	https://www.moe.gov.sg/-/media/files/primary/syllabus/2023-primary-science.pdf	P3-P6 topics, learning outcomes, practices, values and notes	Reviewed for V5
Assessment reference	SEAB 2026 PSLE Science Syllabus	https://www.seab.gov.sg/files/PSLE%20Syllabus%20documents/2026%20PSLE/0009_y26_sy.pdf	Assessment objectives and visual/data representations	Reviewed
Governance	Master matrix precedes level KP lists	Internal PSLE Checkpoint rule	P3/P4/P5/P6 KP lists must be filtered from this master	Authoritative
V4 foundation	P4/P5 boundaries rebuilt	Deep review finding	Moved Reproduction and Water to P5; removed P4 human reproduction	Retained
V5 correction	P5 Water completeness	Final review finding	Added importance to life processes and water-pollution impact	Completed
V7 correction	Compliance-first rebuild and prerequisite correction	MOE Primary Science Syllabus 2023	P4 Matter restored; P6 sequence corrected; topic-based stages applied	Verified against compliance register
Derivation record	Grade KP list generated from V7 Master Matrix	D:/Work & Company/XIN Technology/PSLE Checkpoint/Science/Primary_3_to_Primary_6_Science_Complete_Yearly_Master_Matrix_V7_MOE_2023.xlsx	Weekly, atomic, progression, spiral and outcome-level coverage records retained without rewriting	Verified during export