



Subject progression: Science

Year 1	
Subject area	Examples of skills
Explaining Science	<ul style="list-style-type: none">• Can suggest what might happen with help• Can remember simple facts about science with help• Can use relevant words when I talk or write ('science' words)• Can describe what is happening (words, pictures)• Can use pictures or actions to describe & explain
Classification	<ul style="list-style-type: none">• Can sort using instructions or pictures• Can group familiar things by size, colour, shape, etc• Can use my senses to identify properties of materials
Designing Experiments	<ul style="list-style-type: none">• Can suggest everyday items to use in an investigation• Can work safely when given instructions• Can follow short demo, spoken & picture instructions
Data, Tables & Graphs	<ul style="list-style-type: none">• Can position numbers on a number track• Can use non-standard units & can list some standard units• Can use a simple table by recording in pictures & words• Can add to block charts by counting up• Can add to pictograms to record what I have seen• Can talk about simple whole number patterns• Can use 'more' or 'less' to compare numbers
Making Conclusions	<ul style="list-style-type: none">• Can suggest how to find an answer with help• Can aware things change in an investigation• Can select information to use in an answer with help• Can describe the changes that are happening• Can explore different ways to do things through play

Year 2

Subject area	Examples of skills
Explaining Science	<ul style="list-style-type: none">• Remember simple facts about science• Can remember science words with help (short term)• Can use science facts to describe events I have seen• Can use & add labels on diagrams to identify & describe• Can select relevant information to use in an answer
Classification	<ul style="list-style-type: none">• Can use a simple spider key with obvious differences• Can group by difference, similarity or change• Can link properties of materials to an application
Designing Experiments	<ul style="list-style-type: none">• Can suggest what might happen in my investigation• Can group science equipment by their use (use with help)• Can list some common dangers to safe working• Can suggest an idea to test from observations• Can identify variables in investigations• Can follow demo, spoken & picture instructions in order
Data, Tables & Graphs	<ul style="list-style-type: none">• Can measure labelled divisions on a number line• Can measure whole number values in standard units• Can use a simple table by recording in words & numbers• Can plot whole number values for one axis (all labelled)• Can construct block charts & pictograms
Making Conclusions	<ul style="list-style-type: none">• Can describe simple features & patterns in data & charts• Can see obvious differences in sets of numbers• Can describe the changes that have happened• Can suggest a different way to do things with help

Year 3

Subject area	Examples of skills
Explaining Science	<ul style="list-style-type: none"> • Can use science ideas / facts to describe & explain • Can remember science words I have used before (longer term) • Can begin to use science models to describe (sequenced) • Can add labels & relevant information to diagrams • Can link relevant information together to make an answer
Classification	<ul style="list-style-type: none"> • Can use large spider keys with obvious differences • Can create groups for sorting • Can combine properties of materials required for an application
Designing Experiments	<ul style="list-style-type: none"> • Can predict cause & effect (causal prediction) • Can select suitable equipment for a task (know correct use) • Can notice obvious risks in my investigation • Can identify cause & effect in my investigation • Can suggest a suitable data range for a variable to test • Can follow short written instructions (following a demo)
Data, Tables & Graphs	<ul style="list-style-type: none"> • Can measure unlabelled divisions on a number line • Can measure in & compare values in standard units • Can use a frame to construct a simple table • Can plot whole number values for one axis (some unlabelled) • Can draw bars on whole number bar charts
Making Conclusions	<ul style="list-style-type: none"> • Can describe simple patterns in data, charts & graphs • Can see subtle differences in sets of numbers • Can describe my results by linking cause & effect • Can suggest improvements to my method

Year 4

Subject area	Examples of skills
Explaining Science	<ul style="list-style-type: none">• I show a developing K&U of science ideas & concepts• I use simple science words correctly (meaning; apply)• I use science models to describe ('what')• I annotate diagrams to help describe & explain• I 'cluster' related information together into points (recalled)
Classification	<ul style="list-style-type: none">• I use spider keys with fine differences• I create appropriate groups for sorting• I describe properties of materials required for an application
Designing Experiments	<ul style="list-style-type: none">• I predict a trend (relationship prediction)• I select suitable equipment for a task (whole/decimal scale)• I notice obvious risks & describe safe use of equipment• I plan a fair test by selecting variables to change & measure• I suggest a suitable data range & interval for a variable• I design & write a simple ordered method (from demo)
Data, Tables & Graphs	<ul style="list-style-type: none">• I measure unmarked divisions on a number line (includes zero)• I measure in & convert values in standard units• I compare & order decimals (2sf)• I construct a simple table correctly• I plot coordinates in the first quadrant• I construct bar charts correctly (including axes)
Making Conclusions	<ul style="list-style-type: none">• I describe simple patterns, trends & relationships in data• I see differences (error) in repeated data• I describe trends & begin to use science to explain• I suggest sensible improvements to my method

Year 5

Subject area	Examples of skills
Explaining Science	<ul style="list-style-type: none">• Can show a clear K&U of science ideas & concepts• Can begin to use complex science words correctly• Can use science models to describe & begin to explain (why, how)• Can begin to draw & annotate my own diagrams• Can select & prioritise information create an argument / answer
Classification	<ul style="list-style-type: none">• Can construct spider & use number keys• Can group & sub-group by easily observable features• Can explain how properties suit an application
Designing Experiments	<ul style="list-style-type: none">• Can use K&U to explain my prediction (relationship)
Data, Tables & Graphs	<ul style="list-style-type: none">• Can select suitable equipment (correct scale for task)• Can predict obvious risks & suggest safe use of equipment
Making Conclusions	<ul style="list-style-type: none">• Can plan a fair test & ensure controlled variables kept same• Can suggest data range, interval & sufficient readings (>5)• Can design & write an ordered method (controls variables)

Year 6

Subject area	Examples of skills
Explaining Science	<ul style="list-style-type: none"> • I show a secure 'mastery' of K&U across KS2 • I use complex science words correctly • I use science models to describe & explain (why, how, logical) • I draw & annotate my own diagrams to help describe & explain • I present a clear & logical argument / answer to a question
Classification	<ul style="list-style-type: none"> • I construct both spider & number keys • I group & sub-group by fine observations • I explain the science behind a range of material properties
Designing Experiments	<ul style="list-style-type: none"> • I reason K&U to make a hypothesis (relationship) • I select suitable equipment (correct scale & use for task) • I plan to minimise risk & act on safety suggestions • I plan a reliable fair test (confident use variable terminology) • I plan to collect repeat readings (>3) & calculate mean • I design & write a reliable ordered method (repeats) • I reason K&U to make a hypothesis (relationship)
Data, Tables & Graphs	<ul style="list-style-type: none"> • I decide on limits of a number line & begin to scale up/down • I measure/calculate standard units (inc. area/volume) • I round & calculate with decimals (2sf) • I construct a complex table to show repeated data • I draw a trend line for linear data (all quadrants) • I construct a scatter / graph correctly (including axes)
Making Conclusions	<ul style="list-style-type: none"> • I describe changing patterns, trends & relationships • I spot anomalous data & explain from the method • I use 1^o/2^o data in my conclusions & science models to explain • I suggest limitations (use data) & practical improvements