Overview of TAPS plans for Focused Assessment of Working Scientifically

(Any focus can be chosen for open-ended enquiries, these are only suggestions)

	PLAN		DO		REVIEW	
	Ask Qs + plan enquiry	**Set up enquiry**	**Observe + Measure**	**Record**	**Interpret + Report**	**Evaluate**
R plans	Brown apples, Scoop sounds	Incy shelter, Mix materials	Frozen balloons, Senses walk	Scavenger sort, Forensic footpr	Butter, Toy forces, Taste test, Bubble snake	
KS1 (age 5-7) Develop close obs	Ask simple Qs and recognise that they can be answered in different ways*.	Perform simple tests	Observe closely, using simple equipment.	Gather and record data to help in answering questions.	Use their observations and ideas to suggest answers to questions. Identify and classify. *Use appropriate scientific language to communicate ideas.*	
Y1 TAPS plans	Reflectiveness, Transparency Dunlop balls	Floating and sinking Teddy zipline	Plant structure, Leaf look Shades of colour	Seasonal change Bridge material testers	Animal classification, Humans body parts Surprise materials	
Y2 TAPS plans	Waterproof, Separating colours Animal home build	Rocket mice, Daisy footprints Feeding simulation	Plant growth Ice escape, Drops on coin	Woodlice habitats Materials hunt	Nature spotters, Living and non, Human handspan Muffling sound, Boat materials	
LOWER KS2 (age 7-9) **Develop systematic approach**	Ask relevant questions and use different types* of scientific enquiries to answer them.	Set up simple practical enquiries, comparative and fair tests.	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.	Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Identify differences, similarities or changes related to simple scientific ideas and processes.	Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Use straightforward scientific evidence to answer questions or to support their findings.
Y3 TAPS plans	Investigating skeletons Cupcake parachutes Litter pick Qs	Shoe grip forces Magnet tests	Measuring plants Plant close obs, Ice cream Forensic fingerprints	Making shadows Cars down ramps	Rock reports Eco Action, Wind power vehicle Macintosh waterproof	Function of stem Balloon rockets Egg drop packaging
Y4 TAPS plans	Investigating pitch Cornflour slime, Microfibres	Drying materials	Measure temperature Circuit products	Local survey of living things	Electrical conductos String phones, Digestion model	Teeth(eggs) in liquids Dunking biscuits
UPPER KS2 (AGE 9-11) **Develop independ-ence**	Plan different types* of scientific enquiries to answer *their own questions*, including recognising and controlling variables where necessary.	Use test results to make predictions to set up further comparative and fair tests.	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	Report and present findings from enquiries, inc conclusions and causal relationships, in oral and written forms such as displays and other presentations, *using appropriate scientific language.*	Explain degree of trust in results. Identify *and evaluate* scientific evidence *(their own and others')* that has been used to support or refute ideas or arguments.
Y5 TAPS plans	Dissolving, Nappy absorbency Paper planes Space travel Qs	Thermal insulation layers Zipline testing	Human growth survey Spinner dropping Titanic pulleys	Sugar cubes Space craters, Bottle flip Seed dispersal	Champion tapes Research: Life cycle, Solar system Dirty water filter	Aquadynamics, Marblerun force Forensic powders Jump patterns
Y6 TAPS plans	Bulb brightness, Light Qs O-wing flight, Flower sampling	Human heart rate Bird beaks	Conductive dough Terrific tasters	Living things keys, Shadows invest Camouflagued moths	Invertebrate research	Bridge engineers, Pollution survey Fossil habitats, Egg strength
Transition	Reaction catches	Yeast growth	Formula 1 tubs	Blood splatter	Lolly stick catapults	Cleaning coins

***Types of enquiry including: observing changes over time, noticing patterns, grouping and classifying, comparative and fair tests, using secondary sources.**

Progression statements are taken directly from England's 2014 National Curriculum, *with small additions in italics from the 2018 Teacher Assessment Framework.*

Topics based in: Biology, Chemistry, Physics