Oracy in Science - Progression

EYFS – Foundations of Scientific Talk **Focus:** noticing, naming, describing, sharing ideas, turn taking	KS1 – Building Scientific Language & Reasoning **Focus:** describing, comparing, and beginning to justify
Children begin to: • Use simple observational language (e.g., "It's wet", "It's bigger"). • Describe what they see, hear, or feel during exploration – begin to speak in full sentences. • Listen to others and take turns in conversation. • Express simple preferences or predictions ("I think… it will float"). • Use everyday words to talk about changes observed ("It grew", "It melted") - recalling key moments in the correct sequence (using words and pictures to support). • Begin to use and/because in talk to add to their ideas. • Take part in imaginative role play, linked to a familiar context and using appropriate language modelled to them.	**Children develop the ability to:** • Listen to the ideas of other peers • Participate in oral reporting back ("We found that…"). • Can talk about their observations and findings using appropriate vocabulary e.g. "My fingers are much better at feeling than my toes" • Use joining words during talk to extend ideas, e.g. and, because, when, before, after, if, etc. e.g. "My foil boat floated better than my paper boat because the paper got too wet and soggy" • Use comparative language (bigger/smaller, hotter/colder, faster/slower). • Ask simple scientific qus or appropriate qus to clarify thinking. • Answer questions orally (such as "Which cloth is the most absorbent") using their observations and investigation evidence. • Begin to use scientific vocabulary in sentences when talking about their learning in a topic (e.g., habitat, material, temperature). • Make a video to demonstrate their science knowledge orally.

Teacher prompts:
• "What do you notice?"
• "How did it change?"
• "What do you think will happen next?"
	Sentence stems to support oracy:
	• Using sentence stems to describe patterns
	  ○ *"I noticed…* it grew more in the light".
	• Using sentence stems for reasoning:
	  ○ *"I think… because…" / "My idea is…"*
	  ○

Physical	Linguistic (vocab, grammar)	Cognitive (content)	Social & Emotional	Physical	Linguistic (vocab, grammar)	Cognitive (content)	Social & Emotional
Simple sentences, naming	Everyday language	Noticing and describing	Turn-taking	Speaking clearly in groups	Scientific terms introduced	Simple explanations (using 'because')	Pair talk

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Lower KS2 – Explaining, Justifying & Collaborative Talk **Focus:** structured explanations, reasoning, and evidence	Upper KS2 – Precision, Evidence & Scientific Argumentation **Focus:** critical thinking, accurate scientific communication & formal presentation
Children can now: • Provide oral explanations linked to scientific concepts, extending with additional details, e.g., explaining a process such as melting, digestion, etc, • Use scientific vocabulary precisely and increasingly independently to articulate learning, orally in a group/pair first and then in writing (use speaking frames and visuals to support) • Collaborate in pairs/groups to plan an investigation making some of their own decisions and choices. • Take turns when making contributions and responding to others, in a variety of group situations, e.g. discussions and debates. • Challenge the ideas and suggestions of others respectfully. • Justify their reasoning using their prior learning and/or using evidence. ("I think this because…" or "Our results show that…"). • Speak audibly and fluently to present their findings as a group to the rest of the class.	**Children are able to:** • Explore, discuss and use precise scientific vocabulary, including topic-specific terminology – make decisions orally as a group/pair as to which are the best words to use to improve writing. • Ask a range of appropriate questions to clarify and refine thinking. • Challenge ideas constructively within a group. • Present findings orally and with supporting justification using structured formats (presentations, reports) in relation to questions posed with 'how' and 'why', e.g. How does the camel adapt to its environment? • Participate in discussions and debates building on their own and others' ideas, challenging views courteously (increasingly addressing common misconceptions e.g. through concept cartoons). • Critically evaluate the quality of evidence orally. • Argue scientifically using data ("The evidence supports/does not support…").
ABC (Add, Build On, Challenge) opportunities introduced: • Agreeing/disagreeing respectfully ("I agree with ___ because…"). • Building on ideas ("Adding to what ___ said…"). • Clarifying understanding ("What do you mean by…?") • Justifying – Teacher Prompt: "Why do you think that?"	**Talk structures for upper KS2:** • Teacher prompts to probe deeper understanding: Can you explain the scientific idea behind that? How does that link to what we learned last lesson? • 'Think–Pair–Compare–Share' prompt Think: Individual reasoning Pair: Explain idea to partner Compare: Identify similarities/differences in reasoning Share: Agreed common features, using scientific vocabulary • Conclusion prompt: *"The evidence suggests…" "If…. then… because…"* • Evaluation prompt: *"A limitation of our investigation was…"*

Physical	Linguistic (vocab, grammar)	Cognitive (content)	Social & Emotional	Physical	Linguistic (vocab, grammar)	Cognitive (content)	Social & Emotional
Projecting voice for explanations	Expanded topic vocabulary	Evidence-based reasoning / Justifying explanations	Group decision-making	Using formal scientific talk in presentations	Precision in scientific terminology	Evaluating reliability, arguing from evidence	Leading discussions, constructive critique

Summary of progression

	Physical	**Linguistic (vocab, grammar)**	**Cognitive (content)**	**Social & Emotional**
EYFS	Simple sentences, naming	Everyday language	Noticing and describing	Turn-taking
KS1	Speaking clearly in groups	Scientific terms introduced	Simple explanations (using 'because')	Pair talk
Lower KS2	Projecting voice for explanations	Expanded topic vocabulary	Evidence-based reasoning / Justifying explanations	Group decision-making, and discussions
Upper KS2	Using formal scientific talk in presentations	Precision in scientific terminology	Evaluating reliability, arguing from evidence	Leading discussions, debating, constructive critique