

Year 2 Science – Whitegate End

Key Vocabulary
Physicist, universe, planets, solar system, university, stargazing, astronomer.

Pedagogy
Retrieval practice describes the process of recalling information from memory with little or minimal prompting. Low stakes tests (such as individual questions or quizzes) are often used as methods of retrieval practice as these require pupils to think hard about what information they have retained and can recall. When used in this way, tests can be a strategy for learning in addition to being an assessment of learning. The retrieval practice evidence base (both basic and applied) suggests that testing learning is often a better strategy for learning than restudying or recapping the same information.
Spaced practice (also referred to as spaced learning, distributed practice, distributed learning, and the spacing effect) applies the principle that material is more easily learnt when broken apart by intervals of time. Spaced practice is often contrasted with 'massed' or 'clustered' practice, whereby material is covered within a single lesson or a linear and sequential succession of learning.
Assessment is a continuous process, integral to learning and teaching. It plays an integral part in each teacher's planning and enables the evaluation of current practice as well as pupil achievement. Assessment is a daily part of the life of the school. Informal assessments, through monitoring of children's work and understanding of concepts, are used by teachers to inform their teaching. These can be seen in each teachers Whole Class Feedback Book and subsequent KUNCU (Keep Up Not Catch Up) sessions.

High Quality Texts
Professor Brian Cox – Science becomes cool!
Here we are – Oliver Jeffers
Meet the planets – Caryl Hart
Toys in space – Mini Grey
Beegu – Alexis Deacon

National Curriculum Expectations	Substantive Knowledge (What)	Disciplinary Knowledge (How)	Cultural Capital/ Experiences	Opportunities for Oracy	Opportunities for Play	Diversity and Culture/Similarities and differences	Life Skills	Outdoor Learning/Fieldwork	Cross Curricular Links
During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: <input type="checkbox"/> asking simple questions and recognising that they can be answered in different ways <input type="checkbox"/> observing closely, using simple equipment <input type="checkbox"/> performing simple tests <input type="checkbox"/> identifying and classifying <input type="checkbox"/> using their observations and ideas to suggest answers to questions <input type="checkbox"/> gathering and recording data to help in answering questions.	Who is Brian Cox? What has his impact been on Oldham? What are the names and properties of the 8 planets? What is the solar system? What is a letter?	Conduct research about Brian Cox. Find out the link between Brian Cox and Oldham. Watch, research and read information about the 8 planets. Research the solar system and present "stargazing live." Read Brian Cox's biography and complete one for themselves (letter about themselves to a friend.)	<ul style="list-style-type: none">Use of Google Earth within the classroom to travel to space.Brain Cox show – recording.	<ul style="list-style-type: none">Present stargazing live @WGE.Have a class debate about where would be better to travel to – the moon or mars?Chalk the planets on the playground and use oracy skills to identify them.	<ul style="list-style-type: none">Play an alien or planets game on the playground – use of imagination.Name and identify the properties of all 8 planets.INVITESpace tuff tray – planet inflatables, plastic solar system model, Brian Cox photographs.ENHANCETopic basket of books placed near the tuff tray.FACILITATEFact cards about all the planets stuck to the bottom of the tuff tray – like top trumps.	<ul style="list-style-type: none">How is Earth similar/ different to Mars?How is Brian Cox similar/ different to Stephen Hawking?How is my life similar/ different to Brian Cox?	Learn about the physics of our planet Earth – we can't know where we're going until we know where we've been. The wider Universe and solar system – how does it all link together?	<ul style="list-style-type: none">Use of a blanket on the field to gaze at the clouds – make images.Chalk the solar system on the playground.Visit from VR company.	Biography writing – letter writing. Narrative about Space. Maths – link to volume History – Brian Cox biography/ Oldham/ Chadderton Geography – Four countries of the UK thinking about Brian Cox's link to Oldham Instructions – how to make a solar system Letter to Brian Cox inviting him in school – explain we have been learning all about him