

twigScience Pre-K Scope and Sequence

MODULE	NGSS	HEAD START PERFORMANCE STANDARDS			
1. Senses Safari Students journey through the jungle, using their five senses to explore the world around them.	K-LS1-1, SEP-6, CCC-4, CCC-6	Approaches to Learning Lesson 1, 3, 9 P-ATL 2 Lesson 1, 7 P-ATL 3 Lesson 1, 2, 3, 4, 7, 9 P-ATL 4 Lesson 2, 4, 6, 7 P-ATL 8 Lesson 3, 6 P-ATL 9; P-ATL 12 Lesson 1, P-ATL 11 Lesson 3, 9 P-ATL 13	Language and Communication Lesson 1–9 P-LC 1 Lesson 3, 5, 7 P-LC 2 Lesson 1, 3 P-LC 3 Lesson 3 P-LC 5 Lesson 1, 3, 9 P-LC 6 Lesson 3, 5, 7 P-LC 7 Literacy Lesson 3, 5, 7, 8 P-LIT 3 Lesson 3, 5 P-LIT 4; P-LIT 5; P-LIT 6	Social and Emotional Development Lesson 1 P-SE 3 Lesson 4, 7 P-SE 4 Lesson 4 P-SE 7 Mathematics Development Lesson 4, 5, 7 P-MATH 1 Lesson 1, 7 P-MATH 2; P-MATH 3 Lesson 7 P-MATH 9 Lesson 4, 7 P-MATH 10	Scientific Reasoning Lesson 1–6, 8 P-SCI 1 Lesson 4, 5 P-SCI 2 Lesson 1, 4, 5 P-SCI 3 Lesson 3 P-SCI 4 Lesson 1, 4 P-SCI 5 Lesson 1, 4, 6 P-SCI 6 Motor and Physical Development Lesson 2, 4 P-PMP 1 Lesson 1, 2, 4, 6, 8 P-PMP 2 Lesson 1, 4, 5, 7 P-PMP 3
2. How to Build a Human What are the ingredients that make up a human being? In this module, students learn about their different body parts and how they work together—before building a human of their own!	K-LS1-1, SEP-2, CCC-4, CCC-6	Approaches to Learning Lesson 2, 6, 7, 8 P-ATL 3 Lesson 1, 4, 5, 8 P-ATL 4 Lesson 1, 4, 6, 8 P-ATL 8 Lesson 1, 2, 4, 5, 8 P-ATL 9 Lesson 3 P-ATL 11 Lesson 4, 6 P-ATL 13 Literacy Lesson 3 P-LIT; P-LIT 5; P-LIT 6	Language and Communication Lesson 1–10 P-LC 1 Lesson 1, 3, 4, 8, 10 P-LC 2 Lesson 8 P-LC 4 Lesson 1, 9 P-LC 6 Lesson 3 P-LC 7	Mathematics Development Lesson 8 P-MATH 2; P-MATH 3; P-MATH 9 Lesson 1, 8 P-MATH 10 Scientific Reasoning Lesson 2, 4, 5, 7, 9 P-SCI 1 Lesson 2w, 3, 4, 6, 9 P-SCI 2 Lesson 7 P-SCI 3 Lesson 2, 7, 9 P-SCI 4	Motor and Physical Development Lesson 1, 4, 6, 9 P-PMP 1 Lesson 1, 4, 5, 8, 9 P-PMP 2 Lesson 1, 5, 7, 8, 10 P-PMP 3 Lesson 3 P-PMP 5 Social and Emotional Development Lesson 4, 8, 10 P-SE 3 Lesson 9, 10 P-SE 4
3. Ultimate Games Day How do we use forces to play games? Students design the Ultimate Games Day using their knowledge of pushes and pulls.	K-PS2-1, SEP-3, SEP-6, SEP-8, CCC-2	Approaches to Learning Lesson 2, 4, 8, 9 P-ATL 3 Lesson 4, 8 P-ATL 4 Lesson 2, 4, 5, 7, 8, 9 P-ATL 8 Lesson 2, 9 P-ATL 9 Lesson 2–5 P-ATL 10 Lesson 1–3 P-ATL 11 Lesson 4, 5, 9 P-ATL 12 Lesson 1, 9 P-ATL 13	Language and Communication Lesson 1–9 P-LC 1 Lesson 1, 4 P-LC 2 Lesson 9 P-LC 3 Lesson 4 P-LC 4 Lesson 1, 2, 9 P-LC 5 Lesson 1, 2, 4 P-LC 6 Lesson 1P-LC 7 Motor and Physical Development Lesson 1, 2, 4, 6, 8, 9 P-PMP 1; P-PMP 3 Lesson 1–4, 6, 8, 9 P-PMP 2	Social and Emotional Development Lesson 4, 9 P-SE 3 Lesson 2, 4, 6, 8, 9 P-SE 4 Lesson 7, 8 P-SE 11 Literacy Lesson 1–5, 7 P-LIT 3 Lesson 1 P-LIT 4 Lesson 1 P-LIT 5 Lesson 1, 3 P-LIT 6	Mathematics Development Lesson 1–9 P-MATH 1 Lesson 4 P-MATH 4 Lesson 3, 4 P-MATH 10 Scientific Reasoning Lesson 1–5, 9 P-SCI 1 Lesson 3, 9 P-SCI 2 Lesson 2–6 P-SCI 3 Lesson 2, 4, 6 P-SCI 4; P-SCI 6 Lesson 4 P-SCI 5
4. Weather Explorers Recording weather in the Arctic and at home, students examine patterns in data and investigate how weather and the seasons affect humans and animals.	K-ESS2-1, SEP-3, CCC-1, CCC-2	Approaches to Learning Lesson 1, 5 P-ATL 2 Lesson 1, 2, 4, 5 P-ATL 3 Lesson 2, 8 P-ATL 4 Lesson 1, 2, 5, 7–9 P-ATL 8 Lesson 1, 2, 5, 7, 9 Lesson P-ATL 9 Lesson 1, 3–8 P-ATL 11 Lesson 1, 2, 6, 9 P-ATL 12 Lesson 6, 9 P-ATL 13	Language and Communication Lesson 1–9 P-LC 1 Lesson 1, 3, 7 P-LC 2 Lesson 7, 9 P-LC 3 Lesson 1, 6–9 P-LC 5 Lesson 1, 3, 7 P-LC 6 Lesson 3, 4, 6–9 P-LC 7 Literacy Lesson 1, 3, 6, 8 P-LIT 3 Lesson 3, 8 P-LIT 5; P-LIT 6	Social and Emotional Development Lesson 1, 2, 5 P-SE 3 Lesson 1 P-SE 4; P-SE 7 Scientific Reasoning Lesson 1–6, 8, 9 P-SCI 1 Lesson 4, 5 P-SCI 2; P-SCI 5 Lesson 1–9 P-SCI 3 Lesson 2–9 P-SCI 4 Lesson 5, 6, 9 P-SCI 6	Mathematics Development Lesson 2–9 P-MATH 1 Lesson 9 P-MATH 2; P-MATH 3; P-MATH 4; P-MATH 10 Motor and Physical Development Lesson 1, 5 P-PMP 1 Lesson 1, 4, 5 P-PMP 2 Lesson 1–9 P-PMP 3 Lesson 1 P-PMP 6
5. Shipwreck Island Students find themselves washed up on a tropical island! They'll need to work together to complete a number of design and engineering tasks before they can make their escape.	K-2-ETS1-2, K-2-ETS1-3, SEP-1, SEP-3, SEP-4, CCC-1	Approaches to Learning Lesson 1 P-ATL 2 Lesson 1–6, 8–10 P-ATL 3 Lesson 1, 2, 4–6, 8–10 P-ATL 4; P-ATL 8; P-ATL 9 Lesson 9 P-ATL 7; P-ATL 10 Lesson 2, 7 P-ATL 11 Lesson 1, 2, 9 P-ATL 12 Lesson 4, 6, 8, 9 P-ATL 13	Language and Communication Lesson 1–10 P-LC 1 Lesson 4, 7–9 P-LC 2 Lesson 9 P-LC 3 Lesson 1–4, 7–10 P-LC 5 Lesson 1, 5, 7–10 P-LC 6 Lesson 1–3, 6, 7, 9, 10 P-LC 7 Motor and Physical Development Lesson 1, 5, 6, 8, 10 P-PMP 1 Lesson 1, 2, 4–6, 8–10 P-PMP 2; P-PMP 3 Lesson 3 P-PMP 4; P-PMP 6	Social and Emotional Development Lesson 2–10 P-SE 3 Lesson 4–6, 9, 10 P-SE 4 Scientific Reasoning Lesson 1–8, 10 P-SCI 1 Lesson 4–6, 8, 10 P-SCI 2 Lesson 1, 2, 4–6, 8, 10 P-SCI 3 Lesson 1, 4–8, 10 P-SCI 4 Lesson 4–6, 8, 10 P-SCI 5 Lesson 1, 4–6, 8, 10 P-SCI 6	Mathematics Development Lesson 5, 6 P-MATH 1 Lesson 6 P-MATH 2; P-MATH 3; P-MATH 4; P-MATH 5 Lesson 9 P-MATH 9 Lesson 1, 4, 6, 8, 10 P-MATH 10 Literacy Lesson 2, 3, 5–7, 10 P-LIT 3 Lesson 3, 7 P-LIT 4 Lesson 3, 7 P-LIT 5 Lesson 2, 3, 5, 7 P-LIT 6
6. Life on a Farm Students explore what lives on a farm and investigate how we can grow plants to provide us with food. As new animals are born on the farm, students learn about the different stages of life cycles.	K-LS1-1, K-ESS3-1, SEP-2, SEP-8, CCC-1, CCC-4	Approaches to Learning Lesson 3–7, 9 P-ATL 2 Lesson 3–7 P-ATL 3 Lesson 1–5, 7, 9 P-ATL 4 Lesson 1 P-ATL 7 Lesson 5, 7 P-ATL 8 Lesson 5 P-ATL 9 Lesson 1–4, 6 P-ATL 11 Lesson 1, 4, 5, 7 P-ATL 12 Lesson 1, 5, 7–9 P-ATL 13	Language and Communication Lesson 1–9 P-LC 1 Lesson 2, 4–6 P-LC 2 Lesson 1, 4, 5, 8 P-LC 3 Lesson 3, 6, 7 P-LC 5 Lesson 2, 4, 6 P-LC 6 Lesson 2, 4, 9 P-LC 7 Social and Emotional Development Lesson 1, 7 P-SE 3 Lesson 5, 7, 9 P-SE 4 Lesson 3–7 P-SE 7	Literacy Lesson 2, 4, 6, 9 P-LIT 3 Lesson 2, 6 P-LIT 5 Lesson 2, 4, 6 P-LIT 6 Motor and Physical Development Lesson 1, 5, 7–9 P-PMP 1 Lesson 3–9 P-PMP 2 Lesson 2–4, 8, 9 P-PMP 3 Lesson 8 P-PMP 5 Lesson 4, 7 P-PMP 6	Mathematics Development Lesson 3–8 P-MATH 9 Scientific Reasoning Lesson 1–8 P-SCI 1 Lesson 2, 6, 8 P-SCI 2 Lesson 1, 2, 4–8 P-SCI 3 Lesson 1, 3, 6 P-SCI 4 Lesson 3–8 P-SCI 5 Lesson 8 P-SCI 6
7. Ocean Deep How do humans impact the environment in our oceans? Students dive under the water and investigate the ecosystems that are affected by human behavior.	K-ESS3-3, SEP-2, SEP-3, CCC-2	Approaches to Learning Lesson 7, 9 P-ATL 2 Lesson 1, 2, 5, 7–9 P-ATL 3 Lesson 5, 7–9 P-ATL 4 Lesson 2, 7 P-ATL 7 Lesson 2, 7–9 P-ATL 8 Lesson 1, 4, 7, 9 P-ATL 9 Lesson 7, 9 P-ATL 10 Lesson 1–9 P-ATL 11 Lesson 2, 6, 7, 9 P-ATL 12 Lesson 2, 4, 9 P-ATL 13	Language and Communication Lesson 1–9 P-LC 1 Lesson 1, 3, 5, 6, 8 P-LC 2 Lesson 2, 4, 8, 9 P-LC 3 Lesson 3, 4, 6, 7, 9 P-LC 5 Lesson 3, 5, 6, 9 P-LC 6 Lesson 1, 3, 5, 6 P-LC 7 Literacy Lesson 1, 3–6 P-LIT 3 Lesson 3, 6 P-LIT 5 Lesson 3, 6, 9 P-LIT 6	Social and Emotional Development Lesson 1, 2, 4, 5, 7–9 P-SE 3; P-SE 4 Lesson 4, 5, 9 P-SE 7 Lesson 8, 9 P-SE 11 Motor and Physical Development Lesson 1, 3, 4 P-PMP 1 Lesson 1, 4, 5, 7–9 P-PMP 2 Lesson 1, 2, 5, 7–9 P-PMP 3 Lesson 8 P-PMP 6	Scientific Reasoning Lesson 1–7, 9 P-SCI 1 Lesson 2, 3, 9 P-SCI 2 Lesson 1–6, 9 P-SCI 3 Lesson 1, 5–7 P-SCI 4 Lesson 4, 5, 7 P-SCI 5 Lesson 1, 4, 5, 7 P-SCI 6 Mathematics Development Lesson 1 P-MATH 1; P-MATH 2; P-MATH 3; P-MATH 4; P-MATH 10
8. Space Race Students explore what they can see in the sky at nighttime and during the day before blasting off into space for an intergalactic adventure.	SEP-2, SEP-6, CCC-3, CCC-4	Approaches to Learning Lesson 2, 3 P-ATL 2 Lesson 1, 3–6 P-ATL 3 Lesson 1, 5 P-ATL 4 Lesson 3 P-ATL 7 Lesson 3–5, 7 P-ATL 8 Lesson 3–5 P-ATL 9 Lesson 4, 7 P-ATL 10 Lesson 1, 3–5 P-ATL 11 Lesson 4, 5, 7 P-ATL 12 Lesson 3–5 P-ATL 13	Language and Communication Lesson 1–7 P-LC 1 Lesson 1, 2, 4, 6, 7 P-LC 2 Lesson 1, 4, 7 P-LC 3 Lesson 2 P-LC 4 Lesson 5, 7 P-LC 5 Lesson 2, 4, 5 P-LC 6 Lesson 2, 5, 6 P-LC 7 Social and Emotional Development Lesson 4, 5, 7 P-SE 3 Lesson 4, 5 P-SE 4	Literacy Lesson 2, 5, 6 P-LIT 3 Lesson 2, 6 P-LIT 5 Lesson 2, 3, 6, 7 P-LIT 6 Mathematics Development Lesson 4 P-MATH 1; P-MATH 2 Lesson 2 P-MATH 4; P-MATH 8 Lesson 1, 4 P-MATH 9 Lesson 1, 3, 4, 7 P-MATH 10	Scientific Reasoning Lesson 1–7 P-SCI 1 Lesson 2–4 P-SCI 2 Lesson 1, 2, 6 P-SCI 3 Lesson 1, 3, 5 P-SCI 4 Lesson 3, 5 P-SCI 5 Motor and Physical Development Lesson 2, 3, 5 P-PMP 1 Lesson 1, 3–5 P-PMP 2 Lesson 1, 3–5, 7 P-PMP 3 Lesson 1, 3 P-PMP 6

PRE-KINDERGARTEN

Performance Expectation Progressions

Pre-Kindergarten lays the foundations for the science skills that students use as they progress through Twig Science. Pre-K modules connect Head Start Performance Standards to NGSS Performance Expectations, which are revisited in future grades.

PRE-KINDERGARTEN

PROGRESSION							
CURRENT GRADE	FUTURE KNOWLEDGE NGSS PERFORMANCE EXPECTATIONS						
PRE-KINDERGARTEN	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5	GRADE 6
Senses Safari	Module 1 My Big Nature Adventure K-LS1-1	Module 1 Museum of Leafology 1-LS1-1	—	—	Module 5 Super Survivors 4-LS1-1 4-LS1-2	—	Module 1 BioTech Systems Worldwide MS-LS1-8
How to Build a Human	Module 1 My Big Nature Adventure K-LS1-1	Module 1 Museum of Leafology 1-LS1-1	—	—	Module 5 Super Survivors 4-LS1-1	—	Module 1 BioTech Systems Worldwide MS-LS1-3
Ultimate Games Day	Module 2 Marble Run Engineer K-PS2-1	—	—	Module 1 The Ultimate Playground 3-PS2-1 3-PS2-2	—	Module 4 Galactic Guidebook 5-PS2-1	—
Weather Explorers	Module 3 Be Prepared K-ESS2	—	—	Module 4 Weather Warning HQ 3-ESS2-1	—	Module 4 Galactic Guidebook 5-ESS1-2	Module 2 Destination Everywhere! MS-ESS2-5
Shipwreck Island	Module 3 Be Prepared K-PS3-2 K-2-ETS1-3	Module 3 Shadow Town 1-PS4-3	Module 2 Master of Materials 2-PS1-1 2-PS1-2	—	—	Module 1 Matter Mysteries Hotline 5-PS1-3	—
Life on a Farm	—	Module 2 Animal Reporters 1-LS3-1	—	Module 2 Welcome to the Biodome 3-LS1-1	Module 5 Super Survivors 4-LS1-1	Module 2 Yellowstone: Uncovered 5-LS1-1	Module 3 The Red List MS-LS1-4
Ocean Deep	Module 4 I Can K-ESS3-3	—	Module 3 Save the Island Module 4 A Garden for Life K-2-ETS1-1	Module 3 How to Survive an Ice Age 3-LS4-4	Module 2 Sparks Energy, Inc. 4-ESS3-1	Module 3 H2O Response Team 5-ESS3-1 5-ESS2-2	Module 4 Cities of the Future MS-ESS3-3
Space Adventure	—	Module 4 Patterns in the Sky 1-ESS1-1	—	—	—	Module 4 Galactic Guidebook 5-ESS1-1	—