

Grade 1 SCIENCE

Framework for FORMATIVE/CLASSROOM Instruction and Assessment Receptive Domains of **Listening and Reading**

The Pennsylvania English Learner (EL) Overlays assist educators in developing instructional units, lessons, or activities that are meaningful and comprehensible for English learners, and are aligned with Pennsylvania's *EL Differentiation Protocol*.

The EL Overlays illustrate the dynamic process of adapting instruction and assessment based on the English language proficiency of students. These are models that exemplify adaptations for a select instructional contexts and provide resources to extend this process to other instructional units. Key features of the Overlays are Model Performance Indicators (MPIs) which differentiate and scaffold instruction per EL level by adjusting the language function and instructional support.

The EL Overlays are organized by: 1) content area, 2) grade cluster, and 3) language domain (receptive/productive).

Each **Receptive** Overlay contains:

Page 1: Introduction

Page 2: Example Listening Differentiation with Model Performance Indicators (MPIs)

Page 3: Example Reading Differentiation with Model Performance Indicators (MPIs)

Page 4: Receptive Performance Indicator (PI) Builder

Page 5: Differentiation Template

Listening Differentiation with Model Performance Indicators (MPIs)

ELD Standard 4: English learners communicate information, ideas, and concepts necessary for academic success in Science.

Content Standard(s): 3.2.1.B1 Demonstrate various types of motion. Observe and describe how pushes and pulls change the motion of objects.

Concepts:

- Observable changes and patterns in the sky are caused by motions in the Earth-moon-sun system.
- ESS1.A The motion of the sun, moon and earth relates to time. (days, months, years)
- Observable changes and patterns in the sky are caused by motions in the Earth-moon-sun system.
- Patterns of the motion of the sun, moon and stars in the sky can be observed, described and predicted.

Competencies:

- 1-LS1-2 Make observations and describe the different parts of organisms that help them survive, grow, and meet their needs.
- 1-ESS1-1 Use observations of stars, moon, and sun in the day and night sky to describe patterns that can be predicted. Use observations to compare the motion of the sun, earth and moon as it relates to time.
- 1-LS1-1 Design a model that replicates the function of an organism’s structure.
- 1-ESS1-2 Observe and describe patterns of objects in the sky that are cyclic and can be predicted. Observe, describe, and predict patterns of daily change in the appearance and visibility of the moon and sun.

Key Use of Academic Language (KUALA): Students at all levels of English proficiency will **DISCUSS**.

Academic Language Components

Discourse		Sentence		Word	
Forces/Motions Flip book Build a roller coaster		I predict that the object will. . . when I . . .		Gravity Force Speed Revolution	Rotation Tides Phases of the moon Machines
EL Level 1 Entering MPI	EL Level 2 Emerging MPI	EL Level 3 Developing MPI	EL Level 4 Expanding MPI	EL Level 5 Bridging MPI	
Construct models to test force and motion based on one-step oral commands in small groups using L1 or L2.	Construct models to test force and motion based on segmented instruction (e.g. “Get the blocks. [pause] Get the ramp. [pause]...”) in small groups using L1 or L2.	Construct models to test force and motion based on a series of oral statements using realia in a small group.	Construct models to test force and motion based on oral discourse using realia in a small group.	Construct models to test force and motion based on extended oral discourse using realia with a partner.	

Reading Differentiation with Model Performance Indicators (MPIs)

ELD Standard 4: English learners communicate information, ideas, and concepts necessary for academic success in Science.

Content Standard(s): 3.1.1.A1 Categorize living and nonliving things by external characteristics

Concepts:

- LS1.A Organisms have external structures that serve various functions in growth, survival, behavior, and reproduction.
- Organisms have external structures that help them survive, grow and meet their needs.
- Organisms have external structures that help them survive, grow and meet their needs.

Competencies:

- 1-LS1-1 Observe and categorize living and nonliving things by external characteristics.
- Classify plants and animals according to physical characteristics they share.

Key Use of Academic Language (KUALA): Students at all levels of English proficiency will process **EXPLANATIONS**.

Academic Language Components

Discourse		Sentence		Word
Classify organisms by characteristics Sort picture of organisms by characteristics Compare/Contrast internal and external characteristics Explain the different between living and nonliving things. Mary Had a Little Lamp by Jack Lechner (2008)		These are in the same group because. . This belongs in this group because . . . I was that . . . At first I thought that . . . but now . . .		Organisms Internal characteristics External characteristics
EL Level 1 Entering MPI	EL Level 2 Emerging MPI	EL Level 3 Developing MPI	EL Level 4 Expanding MPI	EL Level 5 Bridging MPI
Match labels of living and nonliving things with a partner.	Identify characteristics of living and nonliving things based on illustrated descriptions with a partner.	Sort characteristics of living and nonliving things based on illustrated texts using a graphic organizer in a small group.	Sort characteristics of living and nonliving things based on illustrated texts using a graphic organizer.	Match descriptive phrases to realia or photographs of living and nonliving things.

Building Receptive Performance Indicators (PIs) to differentiate and scaffold instruction per EL level by adjusting the language function and instructional support.

1) Language Function how students will process language during a receptive activity to demonstrate attainment of the ELD and content standard.

The language of RECOUNTS		The language of EXPLANATIONS		The language of ARGUMENTS		The language of DISCUSSIONS	
Arrange	Name	Apply	Identify	Compare	Express	Answer	Initiate
Brainstorm	Order	Chart	Illustrate	Compose	Extract	Ask	Participate in
Categorize	Paraphrase	Classify	Interpret	Confirm	Interpret	Associate	Present
Compose	Reenact	Compare	Narrate	Connect	Justify	Compare	Recommend
Construct	Repeat	Compose	Note	Construct	Negotiate	Confirm	Reflect on
Copy	Replicate	Contrast	Organize	Critique	Respond to	Converse	Request
Cross check	Restate	Define	Present	Defend	Restate	Discuss	Respond to
Draw	Retell	Describe	Role play	Define	Suggest	Edit	Revise
Find	Rewrite	Develop	Show	Elaborate		Give	Use
Follow directions	Select	Express	Summarize			Indicate	
Label	Sequence	Follow directions	Tell				
List	Share	Generalize	Trace				
Locate	State						
Make	Take notes						

2) Content Stem - Selected focus of grade-level curricular lesson/activity for all students which remains consistent across all EL levels:

3) Instructional Support - Scaffolds to accompany explicit instruction with multiple opportunities for student response and feedback decreasing in degree from EL level 1 to level 5.

ELA Sensory Supports	ELA Graphic Supports	ELA Interactive Supports
Acting/Reader's Theater Audio Books Felt/Magnetic Figures Illustrations/Photographs Manipulatives Pantomime Read Alouds Realia Role Play Songs/Chants Total Physical Response (TPR) Videos	Cloze Paragraphs/Sentences Gallery Walk Graphic Organizer Illustrated Word/Phrase Banks or Walls Information Chunking Rubrics Study Guides/Guided Notes Written Objectives	Bilingual/Picture Dictionaries Internet/Software Programs Jigsaw Activities Pairs/Triads/Small Groups Teacher Modeling/Monitoring Use of L1

Differentiation Template

ELD Standard:

Content Standard(s):

Concepts:

Competencies:

Key Use of Academic Language (KUALA): Students at all levels of English proficiency will produce _____.

Academic Language Components

Discourse		Sentence		Word	
EL Level-specific PIs	EL Level 1 Entering	EL Level 2 Emerging	EL Level 3 Developing	EL Level 4 Expanding	EL Level 5 Bridging
Include: 1) Language Function 2) Content Stem (consist across all levels) 3) Instructional Support(s) <i>Language functions and instructional supports can be selected from Page 4, or supplied by the educator.</i>					