

Grade 1 Science

Framework for FORMATIVE/CLASSROOM Instruction and Assessment Productive Domains of **Speaking and Writing**

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 ELP 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 **Productive** Overlay contains:

Page 1: Introduction

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

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

Page 4: Productive Performance Indicator (PI) Builder

Page 5: Differentiation Template

Speaking 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): 4.1.1.C Describe a simple food chain within a terrestrial habitat.

Concepts: Organisms have external structures that help them survive, grow and meet their needs.

Competencies:

- 1-LS1-2 Make observations and describe the different parts of organisms that help them survive, grow, and meet their needs.
- 1-LS1-1 Design a model that replicates the function of an organism’s structure.

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

Academic Language Components

Discourse		Sentence		Word	
Create/label a food web of a terrestrial habitat. Discuss relationships between organisms in the food chain Defend a position		Which food comes from different habitat? I think that ____ is a consumer/producer because... I think a _____ lives in this habitat because Is this a predator/prey organism?		Terrestrial Habitat Caves/mines Farms/cities/towns Water/trees Food chain Producer	Consumer Energy Photosynthesis Nutrition Predator/prey
ELP Level 1 Entering MPI	ELP Level 2 Emerging MPI	ELP Level 3 Developing MPI	ELP Level 4 Expanding MPI	ELP Level 5 Bridging MPI	
Point to and name parts of an illustrated food chain with teacher modeling.	Describe (using words and phrases) the parts of a food chain presented in a model or illustration with a partner.	Describe (using simple sentences) the parts of a food chain from illustrated models.	Discuss the relationship between the parts of a food chain from illustrated models using sentence frames with a partner.	Discuss the relationship between the parts of a food chain from illustrated models in a small group.	

Writing 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.K.A3 Observe, compare, and describe stages of life cycles for plants and/or animals.

Concepts: Plants and animals have a life cycle.

Competencies: Observe and compare the stages of life cycles of organisms (plants & animals).

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

Academic Language Components

Discourse		Sentence		Word
Label a diagram of the life cycle of a _____. Write a poem about the life cycle of a _____. Arrange pictures and explain the life cycle of a . . . Draw and explain the stages of		Which stage comes after . . . Which stage comes before . . .		Living Dead Cycle Metamorphosis
ELP Level 1 Entering MPI	ELP Level 2 Emerging MPI	ELP Level 3 Developing MPI	ELP Level 4 Expanding MPI	ELP Level 5 Bridging MPI
Draw and label pictures of stages of life cycles using illustrated word banks (e.g., seed, sprout).	Describe the stages of life cycles using drawings and phrases an illustrated word bank.	Describe the stages of life cycles using phrases and sentences with an illustrated word bank.	Describe in detail the stages of life cycles with an illustrated word bank and a graphic organizer.	Produce stories about the stages of life cycles with visual support.

Building Productive Performance Indicators (PIs) to differentiate and scaffold instruction per ELP 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	Tell				
List	Share	directions	Trace				
Locate	State	Generalize					
Make	Take notes						

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

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

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

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	
ELP Level-specific PIs	ELP Level 1 Entering	ELP Level 2 Emerging	ELP Level 3 Developing	ELP Level 4 Expanding	ELP 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>					