

WCAS

Partial Item Cluster Guidelines--DRAFT

This document is for the purpose of outlining expectations for partial item clusters that will be taken to item writing workgroups. Each partial item cluster is assigned to a pair of educators.

OSPI style is to be followed as closely as possible.

A partial item clusters includes one to three stimuli and at least six partial items.

Stimuli

A stimulus header is included on first page of outline only. Complete highlighted portions of the header.

First Page:

- Phenomenon/design problem statement
- Title and link to sources
 - URLs will be listed for webpages
 - PDFs will be designated for sources that are journals, and hard copies of PDFs will be provided

Following Page(s):

- Stimulus Title
- Directive
- First stimulus section
 - Each stimulus has a heading that includes a number (e.g., Stimulus 1, Stimulus 2)
 - Add a page break after each stimulus.
 - Each stimulus can have 1 or many items associated with it.
 - Stimuli can include text, diagrams, graphs, tables, animations, etc.
 - Text is first draft language
 - Diagrams, graphs, etc., are scrap art. (i.e., image clip with brief description of use).

Graphics

Graphic information is scrap art. (i.e., image clip with brief description of use).

Item Cluster Name:	Item Cluster Code:
PE Bundle:	Test Name:
Graphic:	

Phenomenon/Design Problem statement: The offspring of hydra, an ocean organism, are genetically identical to the parents.

Sources:

Simple Animals (Hydra)

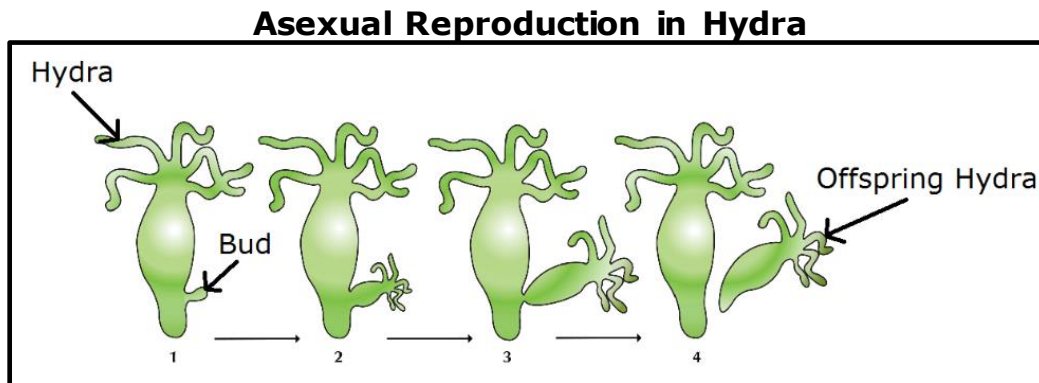
<http://www.bigpicturebiology.com/big-picture-biology-3rd-edition/lab-15-simple-animals/>

Regeneration in Hydra-PDF

Galliot, Brigitte. (2006). Regeneration in Hydra. 10.1038/npg.els.0004186.

Stimulus 1:

Hydra are a freshwater organism related to jellyfish, sea anemones, and corals. Hydra reproduce asexually by developing small polyps that protrude from one parent. These polyps break off from the parent to form a new organism in a process called "budding". Budding is one example of asexual reproduction.



Art Note: Change straight label arrows to "curly arrows" to match WA style.

[Source: <http://www.bigpicturebiology.com/big-picture-biology-3rd-edition/lab-15-simple-animals/>]

Items

'Multiple Choice Item (MC)

Item header included above the item. Complete highlighted portions of the header.

Cluster Title:	Grade:	Item Number:
PE:	Item Interaction: MC	Locked:
Item Specification:		Points:
SEP:	DCI:	CCC:
Stimuli:		Key:
Min/Max:	Graphic:	Layout:
Scoring Notes:		

Description:

- draft stem as a which/what question (with table or graphics if applicable)
- draft correct response with asterisk
- draft 1 distractor
- leave the remainder of the distractors for the work group

Example:

Which statement describes how a heavy rainfall causes the water from the ditch to flow onto the playfield?

- A** The water volume is larger than the ditch can hold during a heavy rainfall.*
- B** The grass near the ditch grows quickly because of the extra water during a heavy rainfall.
- C** Distractor
- D** Distractor

Multiple Select Item (MS)

Item header included above the item. Complete highlighted portions of the header.

Cluster Title:	Grade:	Item Number:
PE:	Item Interaction: MS	Locked:
Item Specification:		Points:
SEP:	DCI:	CCC:
Stimuli:		Key:
Min/Max:	Graphic:	Layout:
Scoring Notes:		

Description:

- draft stem as a directive that includes the number of correct options (with table or graphics if applicable)
- indicate all correct responses with asterisks
- draft 1 distractor
- leave the remainder of the distractors for the work group

Example:

Select **two** statements that describe reasons to use a stream table to test possible solutions during the design process.

- A** The stream table allows all three solutions to be tested without waiting for heavy rainfall.*
- E** The stream table allows students to collect data more quickly than testing with the real ditch.*
- B** The stream table conditions are exactly the same as the conditions in the real ditch.
- C** Distractor
- D** Distractor

Edit Task with Choice Item (ETC)

Item header included above the item. Complete highlighted portions of the header.

Cluster Title:	Grade:	Item Number:
PE:	Item Interaction: ETC	Locked:
Item Specification:		Points:
SEP:	DCI:	CCC:
Stimuli:		Key: Rubric
Min/Max:	Graphic:	Layout:
Scoring Notes:		

Description:

- draft stem that follows ETC style (with table or graphics if applicable), all correct responses
- draft 1 distractor in a dropdown
- keys specified in dropdown with asterisks
 - Multiple keys specified with numbers

Example:

Click each box and select a word to describe how a mutation could result in a change to the sticky foot trait.

A mutation changes the structure of the _____, which can change the

gene*
trait
distractor

structure and function of the _____.

gene*
trait
distractor

Matching Item (MI)

Item header included above the item. Complete highlighted portions of the header.

Cluster Title:	Grade:	Item Number:
PE:	Item Interaction: MI	Locked:
Item Specification:		Points:
SEP:	DCI:	CCC:
Stimuli:		Key: Rubric
Min/Max:	Graphic:	Layout:
Scoring Notes:		

Description:

- draft stem that follows MI style (with table or graphics if applicable)
- draft all column headings
- draft at least two sample row headings
- include at least 2 blank rows (if applicable)
- indicate keys in the table with an asterisk

Example:

Based on the Student Solutions diagram, select a box to predict the effect of each solution.

Effect	Solution 1	Solution 2	Solution 3
Provides space in the ditch for water to flow	*		
Prevents water in the ditch from flowing past the playfield			*

Hot Text Item (HT)

Item header included above the item. Complete highlighted portions of the header.

Cluster Title:	Grade:	Item Number:
PE:	Item Interaction: HT	Locked:
Item Specification:		Points:
SEP:	DCI:	CCC:
Stimuli:		Key: Rubric
Min/Max:	Graphic:	Layout:
Scoring Notes:		

Description:

- draft stem that follows HT style (with table or graphics if applicable)
- draft column headings and approximate number of blank rows in drop space
- draft approximately 50% of dragger statements in a 1-column dragger table with a header titled "Dragger Statements in Correct Order"

Example:

Move each property of Titan into the table to order the properties from the smallest scale to the largest scale.

Order	Statement
1	
2	
3	
4	
5	

Dragger Statements in Correct Order
Minerals in the rocks on Titan
Shape of large landforms
Diameter of Titan
Dragger
Dragger

Table Input Item (TI)

Item header included above the item. Complete highlighted portions of the header.

Cluster Title:	Grade:	Item Number:
PE:	Item Interaction: TI	Locked:
Item Specification:		Points:
SEP:	DCI:	CCC:
Stimuli:		Key: Rubric
Min/Max:	Graphic:	Layout:
Scoring Notes:		

Description:

- draft stem that follows TI style (with table or graphics if applicable)
- draft all column and row headings in answer space
- correct response ranges are indicated in table with an asterisk.
- maximum characters per cell are indicated as a bullet

Example:

Complete the table to show the momentum of each component in the transport system.

Component	Momentum (kg·m/s)
Cargo	545-555*
Truck	2020-2030*
Driver	810-820*

- Maximum 5 characters per cell

Grid/Graphic Gap Match Item (GI/GGM)

Item header included above the item. Complete highlighted portions of the header.

Cluster Title:	Grade:	Item Number:
PE:	Item Interaction: GGM	Locked:
Item Specification:		Points:
SEP:	DCI:	CCC:
Stimuli:		Key: Rubric
Min/Max:	Graphic:	Layout:
Scoring Notes:		

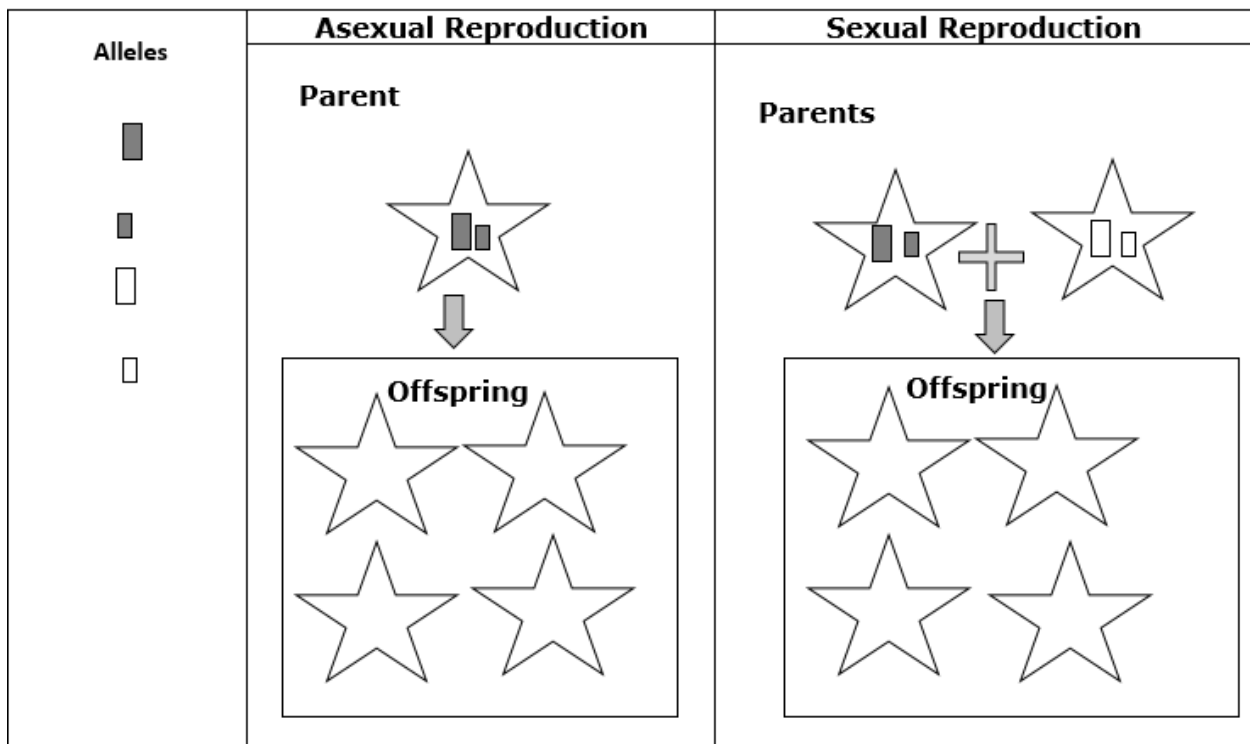
Description:

- draft stem that follows GGM style
- include a scrap graphic for the interaction (simple mockup using MS Word shapes)
- art notes as needed for the graphical background
- include rubric with completed graphical background on a separate page
- include a Clarifications and Details table for educators to complete

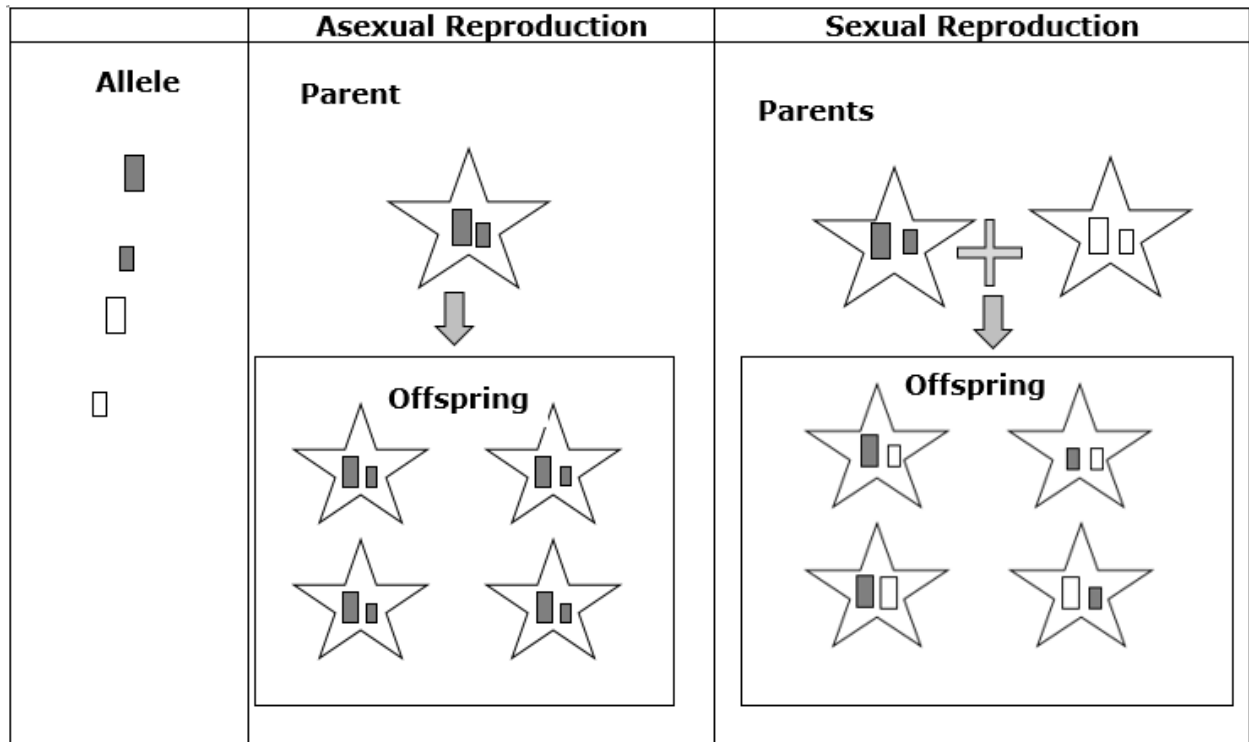
Example:

Make a model to show alleles are passed from parent or parents to offspring during asexual and sexual reproduction of sea stars. Move the alleles into the offspring sea stars to show all the possible combinations of genotypes in the offspring.

- Alleles can be used more than once.
- Not all alleles or stars may be used.



Rubric:



Item Writers: Please provide the following clarifications and details

Category of Information	Clarifications and Details
1. Refreshable or non-refreshable draggers?	
2. Characteristics of objects to be illustrated. (e.g., color, texture)	
3. Components of the graphic that can be omitted.	
4. Preferred labels/naming conventions for objects	

Short Answer (SA)

Item header included above the item. Complete highlighted portions of the header.

Cluster Title:	Grade:	Item Number:
PE:	Item Interaction: SA	Locked:
Item Specification:		Points:
SEP:	DCI:	CCC:
Stimuli:		Key: Rubric
Min/Max:	Graphic:	Layout:
Scoring Notes:		

Description:

- draft stem that follows SA style (with table or graphics if applicable)
- draft rubric with at least two sample answers and rows for writer answers on a separate page
- include a Clarifications and Details table for educators to complete

Example:

Describe a solution that best meets the criteria to recommend to the school principal.

Choose **one** solution:

- Dig a ditch
- Place sandbags
- Add a gate

Describe how well **that** solution meets the three criteria for the solution.

Rubric:

System:	How well the system meets the criteria:
Dig a ditch	Although the ditch takes the most time to install, the ditch lasts longer than the sandbags but not as long as a gate. The ditch costs more than the sandbags but less than the gate
	<i>Additional sample response</i>
	<i>Additional sample response</i>
Place sandbags	The sand bags are faster and cheaper to install than the other two solutions but don't last as long.
	<i>Additional sample response</i>
	<i>Additional sample response</i>
	<i>Additional sample response</i>
Add a gate	The gate had the highest cost and the middle amount of time to build but lasts the longest of any solution.
	<i>Additional sample response</i>
	<i>Additional sample response</i>
	<i>Additional sample response</i>

Item Writers: Please add the following clarifications and details

Category of Information	Clarifications and Details
For 1 point a response must...	
For 2 points a response must...	

Animation – Used in Stimulus or in Item

Description:

- draft stem that follows animation style
- include an animation poster as a graphic, a simple mockup using MS word shapes, a set of stills, and art notes as needed for the graphical background
- include a link to a YouTube video if possible
- draft scripts for each frame

Simulation

Description:

- draft stem that follows simulation style
- include an animation poster as a graphic, a simple mockup using MS word shapes, a set of stills, art notes as needed for the graphical background
- include a link to a YouTube video if possible
- include a sample simulation format and a sample data table format with data
- data should be provided for all possible variable combinations.