

# Is it Reading?

Linking to Content Standards

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National Alternate  
Assessment Center

# Some questions to ask when looking at student performance

- Is it academic?
  - Content referenced: reading, math, science
- Is the content referenced to a student's assigned grade level (based on chronological age)?
- Does the focus of achievement maintain fidelity with the content of the original grade level standard (content centrality)
  - What the student is doing
- Does the focus of the performance level maintain fidelity of the original grade level standard?
  - The level of student performance
- Is the expected student achievement to show learning of grade referenced academic content?

Browder et al. Links for Academic Learning

# Is the expected achievement to show learning of grade referenced academic content?

- Is it academic?
  - Content referenced: reading, math, science
- Is the learning target typical of a student the same age working on the same content?
- Is the level of performance typical of a student the same age working on the same content?
- Is it meaningful?

# Using the Common Core Standards to address instruction

Teachers should .....

- apply strategies for linking to grade level content instruction
- identify clear instructional goals and objectives so that the construct being measured is not compromised
- identify the construct being measured during an assessment so that student performance measures what is intended

That results in .....

- student work that reflects appropriate constructs in reading, mathematics and science

# Is it what we think it is?

Looking at how complexity builds to fully meet the standard

1. Initial activity – learning target may be linked to a similar standard from another grade level and is considered a **Far Link**
2. Building knowledge and skills
3. Meeting the standard – learning target is linked to the appropriate grade level standard and is considered a **Near Link**

# Linking to the Common Core Standards: English Language Arts K-12

## Grades 9-10 Students:

### Strand: Reading Standards for Literature

#### Craft and structure

5. Analyze how an author's choice concerning how to structure a text, orders events within it (e.g., parallel plots), and manipulates time (e.g., pacing, flashbacks) to create such effects as mystery, tension, or surprise.

# Is it what we think it is?

❖ Josh will order notable events in Romeo and Juliet using pictures with simple captions

- ***Is it academic/reading?***

Yes

- ***Is the learning target typical of a student the same age working on the same content?***

Far link. Romeo and Juliet is adapted from a text illustrating complexity and quality from grades 9-10, but Josh is simply ordering events without an overt reference to text structure

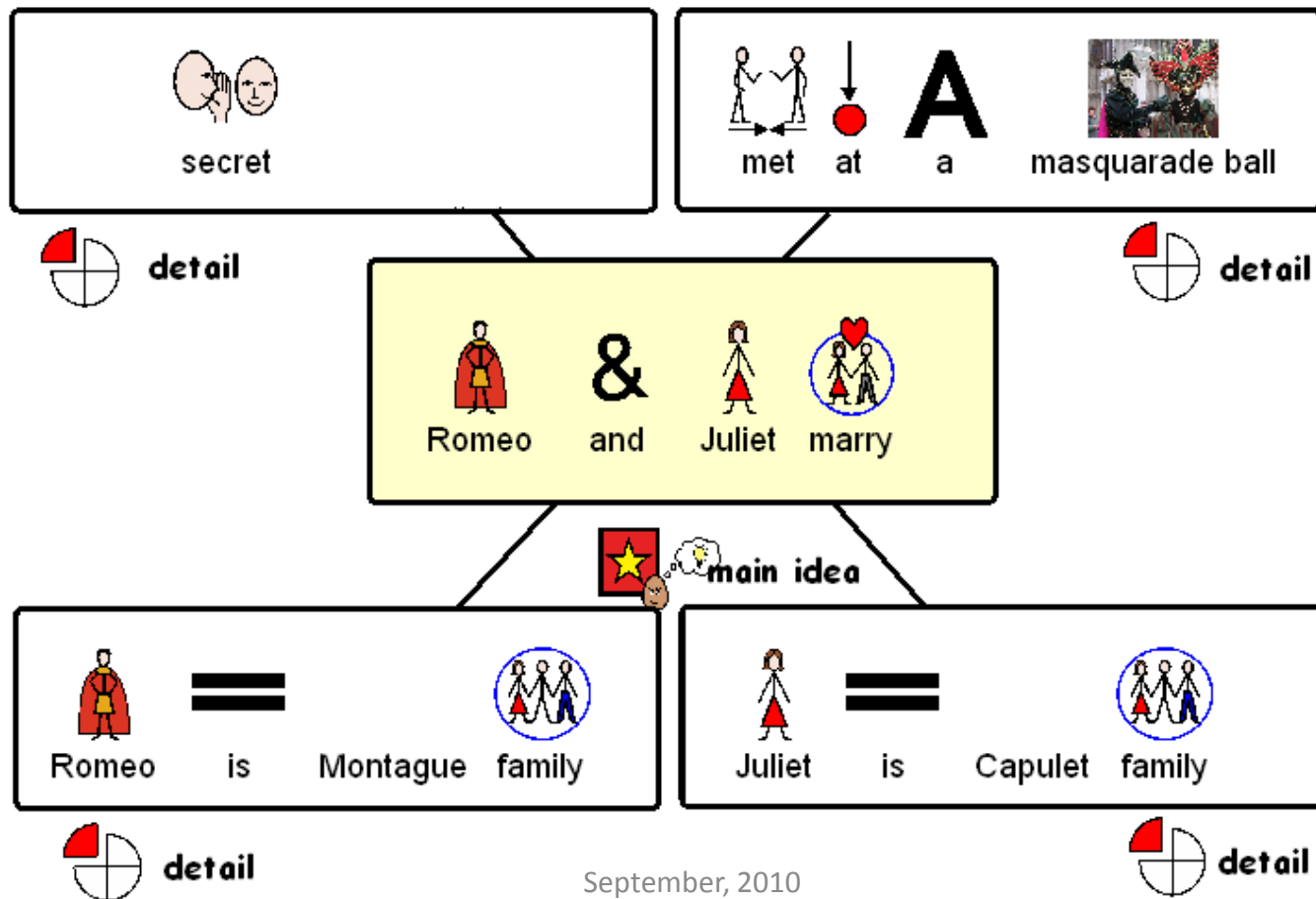
- ***Is the level of performance typical of a student the same age working on the same content?***

Far link. Josh is ordering events (application) but no analysis is involved



# Building knowledge and skill

- ❖ *Josh will use a graphic organizer to lay out details from a notable event.*





# Is it what we think it is?

❖ *Josh will complete a graphic organizer to lay out details of a notable event (includes distractors).*

- ***Is it academic/reading?***

Yes

- ***Is the learning target typical of a student the same age working on the same content?***

Far link. Josh is working on Shakespeare but details of the event are not overtly related to text structure

- ***Is the level of performance typical of a student the same age working on the same content?***

Far link. Josh is identifying (recall) and organizing details (simple application) but it does not include analysis required by the standard



Romeo and Juliet

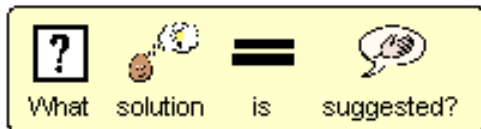
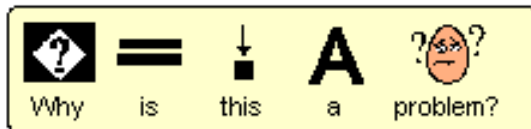
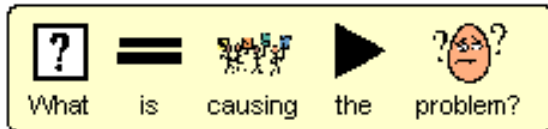
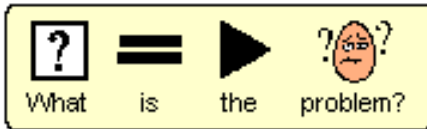
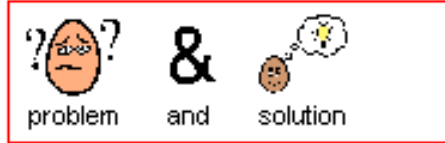
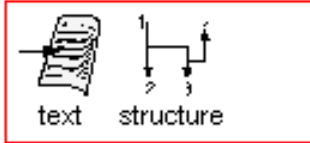
|•

by



Shakespeare

# Text Structure: Problem and Solution



## Reading Standards for Literature/Craft and Structure

- Analyze how an author's choice concerning how to structure a text, orders events within it (e.g., parallel plots), and manipulates time (e.g., pacing, flashbacks) to create such effects as mystery, tension, or surprise.

❖ Angelica will answer questions related to problem and solution (distractors included)



# Text Structure: Problem and Solution








Romeo and Juliet





by









Shakespeare



  
 text structure




  
 problem and solution





  
 What is the problem?







  
 Romeo and Juliet marry in secret













  
 Who had the problem?









  
 Romeo and Juliet






  
 What is causing the problem?









  
 Their families are enemies






  
 Why is this a problem?





  
 Enemies may not marry.





  
 What solution is suggested?







  
 Juliet should take a potion to






  
 look like she is dead.

# Is it what we think it is?

❖ Angelica will answer questions related to problem and solution (distractors included)

- ***Is it academic/reading?***

Yes

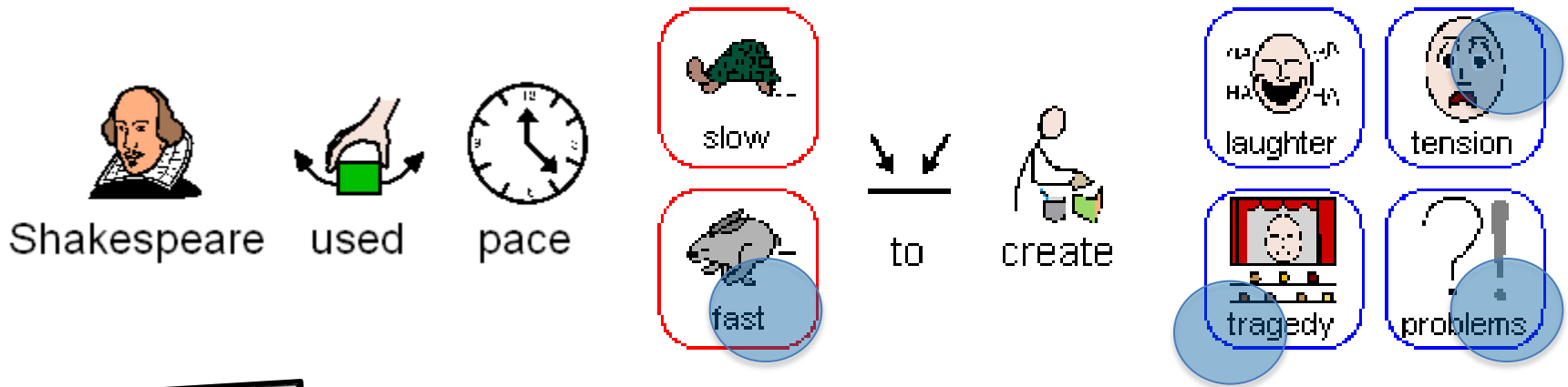
- ***Is the learning target typical of a student the same age working on the same content?***

Far link. Using Romeo and Juliet Angelica is investigating problem and solution, an element of text structure, but there is no evidence of how it is related to text structure

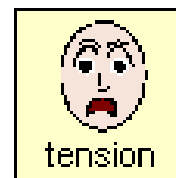
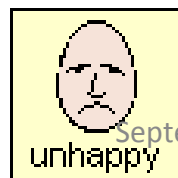
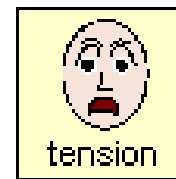
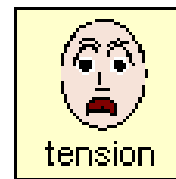
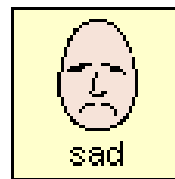
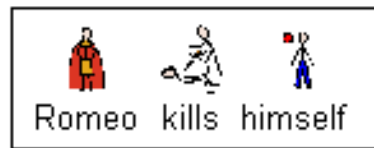
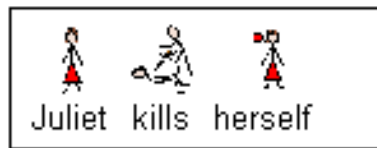
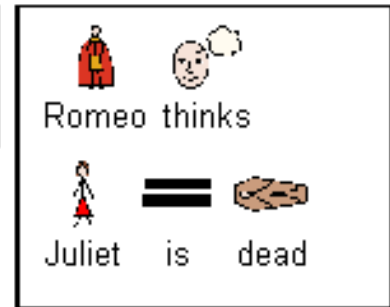
- ***Is the level of performance typical of a student the same age working on the same content?***

Far link. Angelica is answering questions which include recall but at least one includes a description and requires comprehension to answer, but not analysis

# Analyzing how the author uses structure of the text to show tension, etc.



# Analyzing how the author uses structure of the text to show tension, etc.



# Is it what we think it is?

❖ Josh will answer questions related to problem and solution (distractors included)

- ***Is it academic/reading?***

Yes

- ***Is the learning target typical of a student the same age working on the same content?***

Near link. Josh shows how the author is using pace to cause a reaction in his audience and provides examples directly related to the standard

- ***Is the level of performance typical of a student the same age working on the same content?***

Near link. Josh analyzes how the fast pace and order of events causes emotion in his audience through the use of examples of events and resulting tension and a timeline

# Is it Mathematics?

Linking to Content Standards



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# Some questions to ask when looking at student performance

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Browder et al. Links for Academic Learning

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# Using the Common Core Standards to address instruction

Teachers should .....

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That results in .....

- student work that reflects appropriate constructs in reading, mathematics and science

# Is it what we think it is?

Looking at how complexity builds to fully meet the standard

1. Initial activity – learning target may be linked to a similar standard from another grade level and is considered a **Far Link**
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# Standards for Mathematical Practice

## COMMON CORE STATE STANDARDS FOR

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## Mathematics



# How to read the grade level standards

Domain

Grade 3

Number and Operations in Base Ten

3.NBT

**Use place value understanding and properties of operations to perform multi-digit arithmetic.**

1. Use place value understanding to round whole numbers to the nearest 10 or 100.

2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

3. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g.,  $9 \times 80$ ,  $5 \times 60$ ) using strategies based on place value and properties of operations.

Standard

Cluster

# Linking to the Common Core Standards: Mathematics K-12

## 8<sup>th</sup> Grade Students:

### Domain: Expressions and Equations

**Analyze and solve linear equations and pairs of simultaneous linear equations.**

7. Solve linear equations in one variable.
  - a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form  $x = a$ ,  $a = a$ , or  $a = b$  results (*where  $a$  and  $b$  are different numbers*).

# Linking to the Common Core Standards: Mathematics K-12

## 8<sup>th</sup> Grade Students:

### Domain: Functions

**Use functions to model relationships between quantities.**

4. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two  $(x, y)$  values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.



# Is it what we think it is?

❖ *Josh will ..... Create a growing number pattern given the rule +5*

Rule: +5

5 10 15 20 25 30

- ***Is it academic/mathematics?***

Yes

- ***Is the task typical of a student the same age working on the same content?***

Far link. (Josh is creating a number pattern based on a given constant rate of change)

- ***Is the level of performance typical of a student the same age working on the same content?***

Far link. (Josh is using skip counting to model a constant rate of change of +5. He is not determining a rate of change based on a relationship between two variables)

# Is it what we think it is?

❖ *Josh will ..... Complete an input/output table given the rule (e.g., +2)*

- ***Is it academic/mathematics?***

Yes

- ***Is the task typical of a student the same age working on the same content?***

Far link. (Josh is modeling a situation in which a quantity (output) changes at a constant rate.)

- ***Is the level of performance typical of a student the same age working on the same content?***

Far link. (Josh is not determining the constant rate of change within the concept of a linear function, he is not using variables, and therefore not looking at the relationship between variables)

Rule +2	
Input	Output
1	3
5	
2	
8	

# Is it what we think it is?

❖ Josh will use models to determine the relationship between the variables and determine the linear function.

- ***Is it academic/mathematics?***

Yes

[Video](#)

- ***Is the task typical of a student the same age working on the same content?***



Near link. Yes, students model a given situation using manipulatives to create pattern and a table to record the variables. Using the models, the students determine the constant rate of change and use that information to determine the linear function

- ***Is the level of performance typical of a student the same age working on the same content?***

Near link. Josh is modeling how a fence is constructed using manipulatives based on the given situation (how many hours will it take to build 10 sections of fence if the builder builds one section per hour). He then transfers the information into a table to determine the rate of change.

Josh will use models to determine the constant rate of change within linear equations.



H 	S 
0	
1	1
2	2
3	3
4	4
5	5

Rate of change }1  
 }1

}1 Rate of change  
 }1

# Is it what we think it is?

Now let's look at the the learning targets of a student with more significant support needs. Leslie will use a head switch and computer program with scanning capabilities to determine the relationship between the variables and determine the linear function.

- ***Is it academic/mathematics?***

Yes

[Video](#)

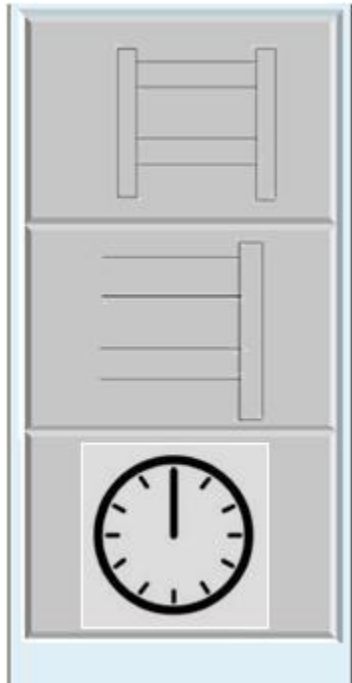
- ***Is the task typical of a student the same age working on the same content?***

Near link. Yes, students model a given situation using manipulatives to create pattern and a table to record the variables. Using the models, the students determine the constant rate of change and use that information to determine the linear function


- ***Is the level of performance typical of a student the same age working on the same content?***

Near link. Leslie is modeling how a fence is constructed using her head switch and computer program based on the given situation (how many hours will it take to build 10 sections of fence if the builder builds one section per hour). She then transfers the information into a table to determine the relationship between the two variables ( $x=y$ ).

Leslie will use assistive technology to determine the pattern and constant rate of change within linear equations.



1 2 3 4




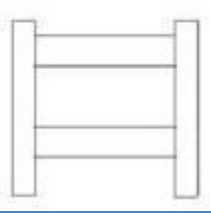
Click on the picture to build a fence .

1 2 3 4 |

Leslie uses a head switch and computer program to create the pattern. For each hour recorded, Leslie adds one more fence section using her switch and scanning program. The program would scan the three picture representations and Leslie would hit the switch as the correct picture was highlighted.

Leslie will use assistive technology to determine the pattern and constant rate of change within linear equations.

1 2 3 **4** 5 6 7 8 9 10

x		y	
1		<u>1</u>	
2		<u>2</u>	
3		<u>3</u>	
4		<u>4</u>	
10		<u>    </u>	

Leslie uses a head switch and computer program to complete the table. For each hour recorded, Leslie records the number of fence sections completed using her switch and scanning program. The program would scan the numbers 1-10 and Leslie would hit the switch as the correct number was highlighted.

# Is It Science?

Linking to Content Standards



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Browder et al. Links for Academic Learning

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# Is It *Science*?

- Sets of specific content facts in several domain areas:
  - **Physical Science**
  - **Life Science**
  - **Earth and Space Science**
  - **Science and Technology**
  - **Science in Personal and Social Perspectives**
  - **History and Nature of Science**
- Scientific inquiry: process(es) of acquiring knowledge

*(National Science Education Standards)*

# Is the expected achievement to show learning of grade referenced academic content?

- Is it academic?
  - Content referenced: reading, math, science
- Is the task typical of a student the same age working on the same content?
- Is the level of performance typical of a student the same age working on the same content?
- Is it meaningful?

# Linking to a Elementary School Standard

- Physical Science

*As a result of the activities in grades K-4, all students should develop an understanding of:*

- *Properties of objects and materials*
- *Position and motion of objects*
- *Light, heat, electricity, and magnetism*

*(National Science Education Standards)*

# 4th Grade Level Standard

- The student will **understand and describe** the basic principles of magnetism.



# Is it what we think it is?

- Marnie is **reaching across midline** to a group of materials.



# Is it what we think it is?

- Marnie will reach **across midline** to a group of materials.

- **Is it academic?**

*No.*

- **Is the task typical of a student the same age working on the same content?**

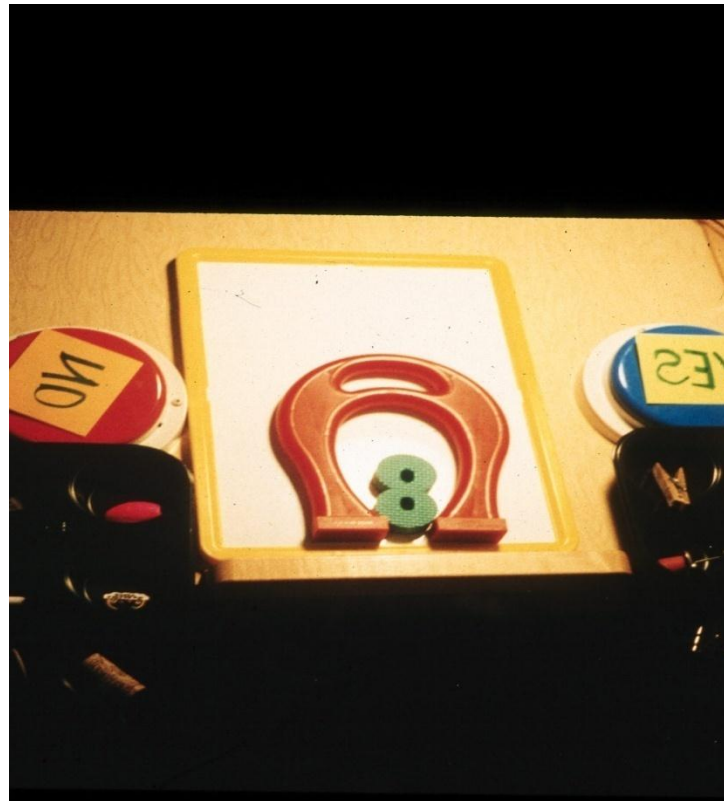
*No. The student is working on motor skills .*

- **Is the level of performance typical of a student the same age working on the same content?**

- *Marnie's performance is not based on academic content*

# Is it what we think it is?

- Marnie will **predict, using a voice output device**, if an object will be attracted to the magnet or not.



# Is it what we think it is?

- Marnie will **predict, using a voice output device**, if an object will be attracted to the magnet or not.

- **Is it academic?**

*Yes*

- **Is the task typical of a student the same age working on the same content?**

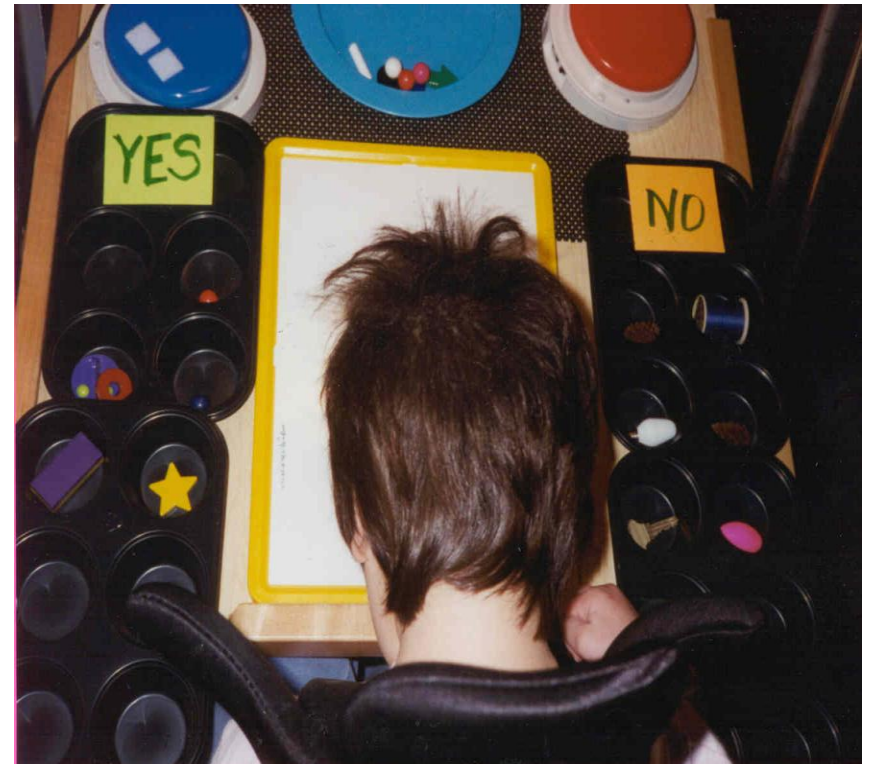
*Far link. Marnie is working with the properties of magnetism; however, prediction itself is tied to standard(s) re: scientific inquiry*

- **Is the level of performance typical of a student the same age working on the same content?**

Near link. Typical students are making predictions about magnetic properties

# Is it what we think it is?

- Marnie will classify objects according to their magnetic properties and compare the classification to her predictions



# Is it what we think it is?

- Marnie will classify objects according to their magnetic properties and compare the classification to her predictions
  - **Is it academic?**
  - *Yes*
  - **Is the task typical of a student the same age working on the same content?**
  - *Near link. Acting upon what she observes during an experiment will help Marnie develop an “understand(ing) ...(of) the basic principles of magnetism.” Typical student classify materials according to what is observed*
  - **Is the level of performance typical of a student the same age working on the same content?**
  - *Far link. There is no comparison.*

# Linking to a Middle School Standard

- Physical Science

*As a result of activities in grades 5-8, all students should develop understanding*

- *Personal health*
- *Populations, resources, and environments*
- *Natural hazards*
- *Risks and benefits*
- *Science and technology in society*

*(National Science Education Standards)*

# 8th Grade Standard

- Students will
  - **Identify** sources of environmental change
  - **Predict** the consequences of environmental changes upon populations
  - **Select or defend** solutions to real-world problems of population control.



# Is it what we think it is?

- Lee will advance a slide presentation using a **toggle switch**



# Is it what we think it is?

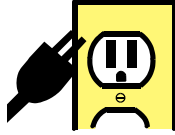

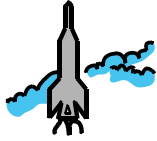



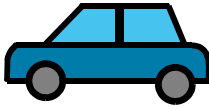

- Lee will advance a slide presentation using a **toggle switch**
  - **Is it academic?** *No, Lee's performance is about activating the switch (even though he might be showing science material)*
  - **Is the task typical of a student the same age working on the same content?** *No, he needs to know this basic information but the performance needs to be about "identifying", "predicting", or "selecting/defending"*
  - **Is the level of performance typical of a student the same age working on the same content?** *Lee is not working on academic content*

# Is it what we think it is?





- Lee will identify sources of environmental change and explain the impact of each incident



*Lee selected pictures of the environment from the table to demonstrate the impact of humans on the environment.*

People want	Bad for environment	
	Air pollution	
	Nuclear waste	
	Pesticides	
	Clear cutting timber	

Copy the picture and paste it in the correct space

# Is it what we think it is?

- Lee will identify sources of environmental change and explain the impact of each incident
  - **Is it academic?**  
Yes
  - **Is the task typical of a student the same age working on the same content?**
  - *Near link. All students work on environmental change*
  - **Is the level of performance typical of a student the same age working on the same content?**
  - Far link. Lee is matching the impact to each source of environmental change and not explaining the impact

# Linking to a High School Standard

- Life Science

*As a result of their activities in grades 9-12, all students should develop understanding of*

- *The cell*
- *Molecular basis of heredity*
- *Biological evolution*
- *Interdependence of organisms*
- *Matter, energy, and organization in living systems*
- *Behavior of organisms*

*(National Science Education Standards)*

# HS Grade Level Standard

- Students will understand, analyze, and explain the role of meiosis in sexual reproduction.

# Is it what we think it is?

- David indicates, by using a switch, when to turn the page when a text is being read to him.



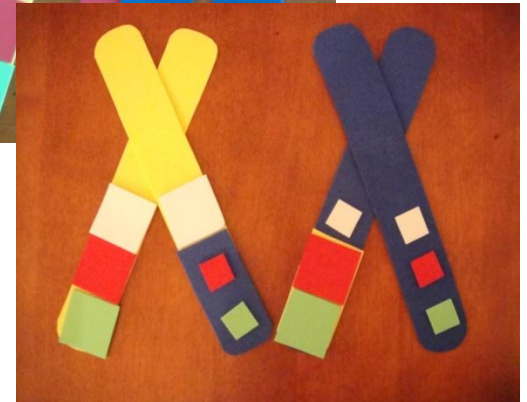
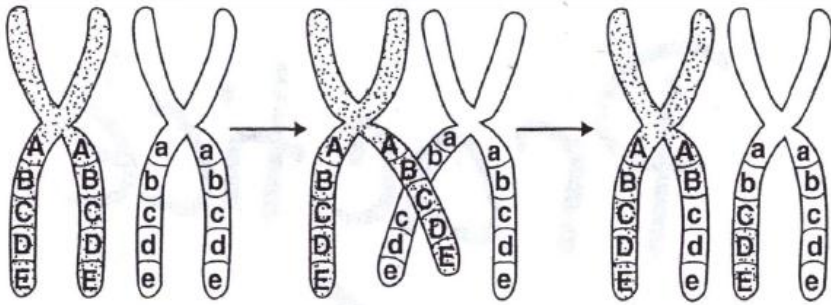
# Is it what we think it is?

- **David indicates, by using a switch, when to turn the page** when a text is being read to him.
  - **Is it academic?** *No, it is a communication skill performed in the context of reading (in this case a science text).*
  - **Is the task typical of a student the same age working on the same content?** *No, while the information is necessary to “understand, analyze, and explain”, this performance is not on these skills.*
  - **Is the level of performance typical of a student the same age working on the same content.** No, Lee is working on an communication skill. While he is using science text for this activity, that in itself does not make it science.



# Meiosis

❖ The student will model and explain the process of meiosis



1. Set up the chromosomes
2. Show the cross over
3. Illustrate the result
4. Explain what happens

# Is it what we think it is?

❖ The student will model and explain the process of meiosis

- ***Is it academic?***

Yes.

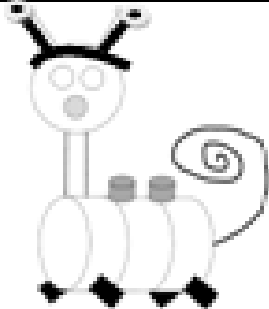


- ***Is the task typical of a student the same age working on the same content?***

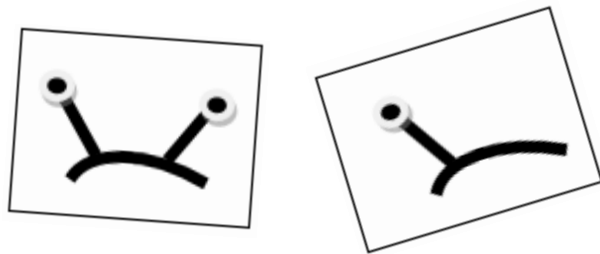
Near link. All students are working on meiosis as they work towards a better understanding of the molecular basis of heredity



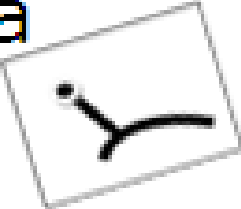


- ***Is the level of performance typical of a student the same age working on the same content.***

Far link. Student is following a series of steps to model a simplified process but does not explain each stage.

❖ The student will complete a Punnett Square using a model

	<p>AA, dominant = 2 antennae</p>  <p>Aa, recessive = 1 antennae</p> 
--	--



		Aa 	
		A	a
AA 	A	A	Aa 
	A	AA 	

# Is it what we think it is?

❖ The student will complete a Punnett Square

- *Is it academic?*

*Yes*

- *Is the task typical of a student the same age working on the same content?*

Near link. All students are working on meiosis showing dominant and recessive traits

- *Is the level of performance typical of a student the same age working on the same content.*

Far link. Student has completed a Punnett Square using a model, but much of the information is provided. Typical students would be completing this independently








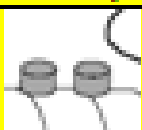


# Identifying Traits

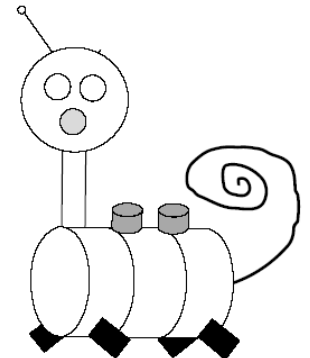
The student will identify the traits for the Reebop using the selected chromosomal indicators

Aa

Tt

MM

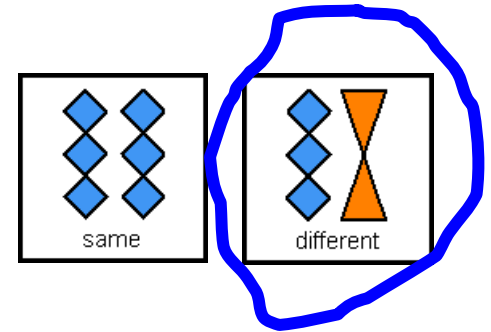
Traits	Traits		
Antennae	AA=2	Aa=1	aa=0
			
Tail	TT, Tt=curly	tt=straight	
			
Humps	MM=2	Mm=1	mm=0
			













# Is it what we think it is?





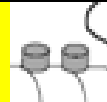

- ❖ The student will identify the traits for the Reebop using the selected chromosomal indicators
  - **Is it academic?**
  - *Yes*
  - **Is the task typical of a student the same age working on the same content?**
  - *Near link. All students work on chromosomal indicators as they move to an understanding meiosis*
  - **Is the level of performance typical of a student the same age working on the same content?**
  - *Far link. Although all students are working on meiosis the student is matching the inherited traits to the chromosomal indicators and not working through the process of meiosis itself and fewer traits*

Student will predict if his/her reebop will be the same or different when comparing chromosomal indicators with another






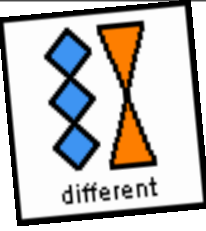



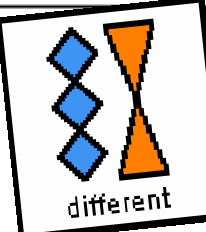
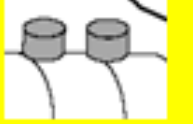



Traits	Traits		
Antennae	AA=2	Aa=1	aa=0
			
Tail	TT, Tt=curly	tt=straight	
			
Humps	MM=2	Mm=1	mm=0
			

Reebop 1

Traits	Traits		
Antennae	AA=2	Aa=1	aa=0
			
Tail	TT, Tt=curly	tt=straight	
			
Humps	MM=2	Mm=1	mm=0
			

Reebop 2

Student will check prediction and explain outcome, if his/her Reebop will be the same or different when comparing chromosomal indicators with another

Traits		John	Explain
Antennae	AA=2 Aa=1	AA=2 Aa=1	
	 antennae	 antennae	 different
Tail	TT, Tt=curly tt=straight	TT, Tt=curly tt=straight	
	 curly	 straight	 different
Humps	MM=2 Mm=1	MM=2 Mm=1	
	 hump	 hump	 different





# Is it what we think it is?

- David **predicts whether his reebop is the same or different** from other reebop offspring after comparing the chromosomal indicators.
  - Is it academic? *Yes,*
  - **Is the task typical of a student the same age working on the same content?**
  - Near link. Student is explaining the difference between the traits of both Reebops.
  - **Is the level of performance typical of a student the same age working on the same content.**
  - Near link. All students are explaining how chromosomal indicators influence inherited traits, although the students work is simplified and lower expectations in terms in difficulty and amount.

# References

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<http://www.ablenetinc.com>
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[http://www.donjohnston.com/products/start\\_to\\_finish/literacy](http://www.donjohnston.com/products/start_to_finish/literacy)
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- **Soderberg, Patti** (1991) Center for Biology Education, University of Wisconsin: Madison, WI
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- **Common Core Standards** © Copyright 2010. National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved.