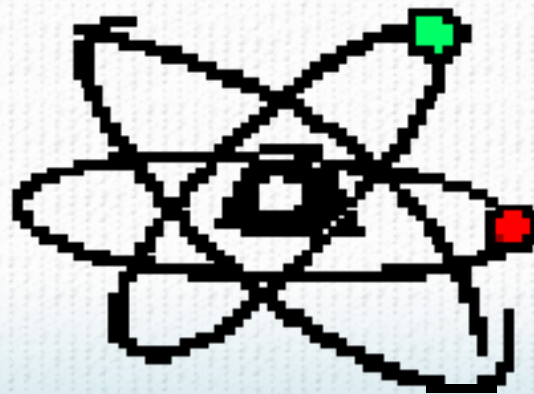




Rhode Island Alternate Assessment Science: Understanding the Inquiry Construct

Sue Dell, The Sherlock Center and Rhode Island College,
Department of Special Education
Angela Palazini, Western Hills Middle School, Cranston



Rhode Island Department of Elementary and Secondary Education

Agenda for Science

RIAA Science Model

Inquiry Construct Table

A Closer look at INQUIRY:
Key Concepts at Each Grade

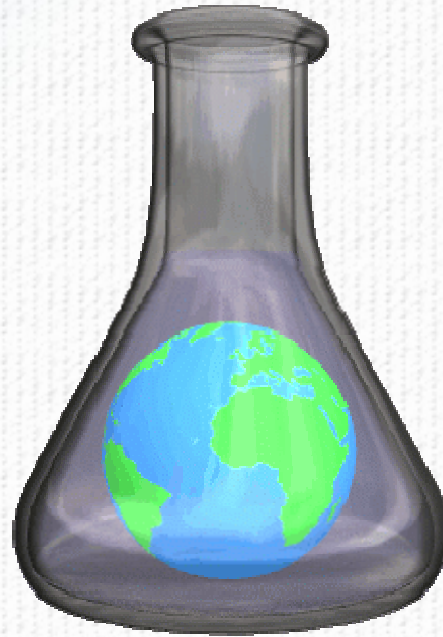
Examples of Inquiry Constructs
Students at three ability levels

Student Work

Science Lab Reports

Review of Science Documentation

Grade 11: Fredrick Science Entry



Science = INQUIRY + KNOWLEDGE

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INQUIRY CONSTRUCT

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What is a Science Investigation?

A science investigation is a science unit/activity that uses all of the inquiry processes of:

- *Observation and Questioning
- *Planning
- *Conducting
- *Analyzing

Science SPT

- Student will demonstrate the concept within a science investigation, which includes observing/questioning, planning, conducting and analyzing.



The Inquiry Construct is assessed
within the context of:

- **Life Science**
- **Earth Space Science**
- **Physical Science**

RIAA Inquiry Constructs

Grade	Observing/ Questioning	Planning	Conducting	Analyzing
4 Choose One	Make and describe observations in order to ask questions, and/or make predictions related to the science investigation.		Follow procedures, using equipment or measurement devices accurately as appropriate, for collecting and/or recording qualitative or quantitative data.	
8 Choose One		Identify information/evidence that needs to be collected and/or tool to be used in order to answer a question and/or check a prediction.	Use data to summarize results.	
11 Choose One			Use accepted methods of organizing, representing and/or manipulating data.	Use evidence to support and/or justify interpretations and/or conclusions or explain how the evidence refutes the hypothesis.

RIAA Inquiry Constructs

Grade	Observing/ Questioning	Planning	Conducting	Analyzing
4	Make and describe observations in order to ask questions, and/or make predictions related to the science investigation.		Follow procedures, using equipment or measurement devices accurately as appropriate, for collecting and/or recording qualitative or quantitative data.	
8		Identify information/evidence that needs to be collected and/or tool to be used in order to answer a question and/or check a prediction.	Use data to summarize results.	
11	<p>NOTE: The Inquiry Construct CONDUCTING changes in each grade (4, 8, 11)</p>		Use accepted methods of organizing, representing and/or manipulating data.	Use evidence to support and/or justify interpretations and/or conclusions or explain how the evidence refutes the hypothesis.

A Closer look at INQUIRY Key Concepts at Each Grade

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Grade 4

Inquiry Construct

OBSERVING/QUESTIONING

Make and describe observations in order to ask questions, and/or make predictions related to the science investigation.

This construct involves:

- making and describing observations to ask a question

and/or

- making a prediction/asking a research question.

Grade 4 Inquiry Construct

CONDUCTING

Follow procedures, using equipment or measurement devices accurately as appropriate, for collecting and/or recording qualitative or quantitative data.

This construct involves:

- following a procedure and collecting or recording data
or
- using equipment/measurement devices **and** collecting or recording data

Grade 8

Inquiry Construct

PLANNING

Identify information/ evidence that needs to be collected and/or tool to be used in order to answer a question and/or check a prediction.

This construct involves:

- identifying information/ evidence to be collected to answer the question or check prediction
- or**
- tools to be used to collect information to answer a question or check a prediction

Grade 8 Inquiry Construct

CONDUCTING

Use data to summarize results

This construct involves:

- using data in some way that results in summary of the findings of the investigation

Grade 11 Inquiry Construct

CONDUCTING

Use accepted methods for organizing, representing and/or manipulating data

This construct involves

- using data in one or more of the following ways
 - Organizing data
 - Representing data
 - Manipulating data

Grade 11

Inquiry Construct

ANALYZING

Use evidence to support and/or justify interpretations and/or conclusions or explain how the evidence refutes the hypothesis.

This construct involves:

- using data for evidence to decide whether the prediction/question was correct.



EXAMPLES

Inquiry Constructs

Grades 4, 8, and 11

for students at three ability levels



Student Work

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Science Entry: Student Work for the Selected Inquiry Construct

Student work must:

- 1 - Demonstrate the student's skills in the Inquiry Construct;
- 2 - Convey that the student work was done within a science investigation related to the chosen AAGSE;
- 3- Coordinate with the information provided on the Student Documentation Form; and
- 4- Meet the RIAA requirements for acceptable student work (see pp. 35 and 91 of the RIAA Manual).

Reminders for Student Work

- Ensure that student work supports the selected Inquiry Construct
- Check that dates on the student work match with the dates on the accompanying SDF and are recorded accurately on the DSS.
- Verify that the percentages in the evaluation of the student's performance and description on the SDF match the student work.
- Verify that the dates and percentages for Accuracy, Independence and Levels of Assistance match those recorded on the DSS.
- Submit one piece of student work for the Inquiry Construct .



Science Lab Reports

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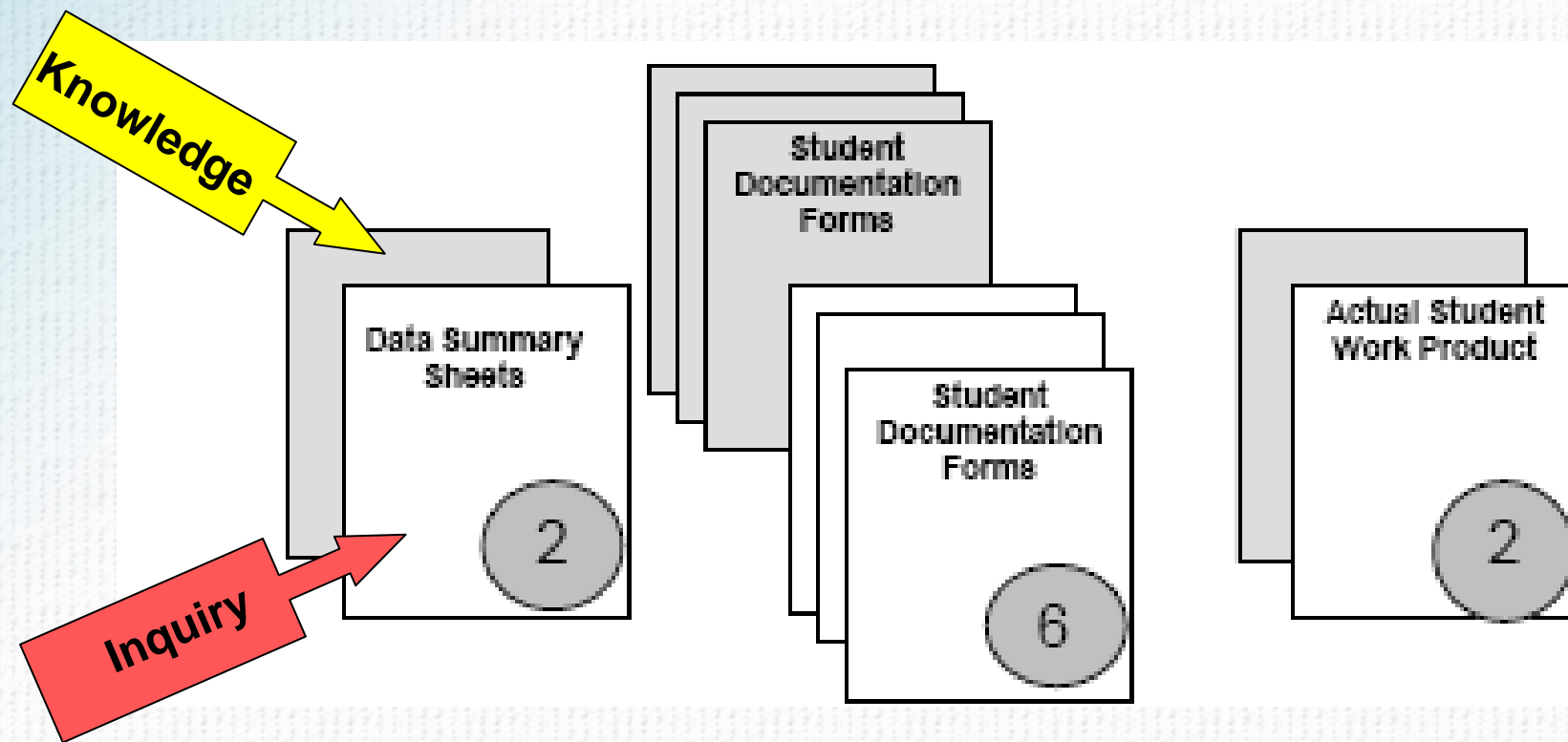
RIAA

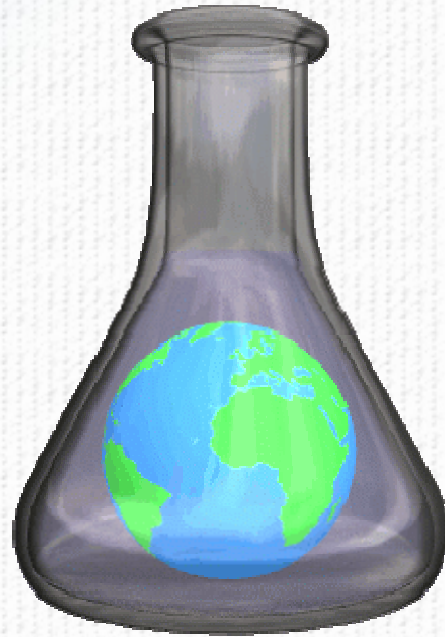
Review of Science Documentation

- Table of Contents
- 2 Entries
 - Inquiry Construct
 - Knowledge AAGSE
- Each entry includes
 - 1 Data Summary Sheet (DSS) with 1 data collection period for each Science domain.
 - 3 Student Documentation Forms (SDF): 1 for each Science domain
 - 1 Student Work Product



Science Documentation





Grade 11: Review of a Science Entry: Fredrik

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Contact Information

- Cynthia Corbridge: RIDE
cynthia.corbridge@ride.ri.gov or 222-8497
- Phyllis Lynch: RIDE
phyllis.lynch@ride.ri.gov or 222-4693
- Susan Dell: The Sherlock Center
sdell@ric.edu or 456-8557
- Amy Grattan: The Sherlock Center
agrattan@ric.edu or 456-8072

