

Assessing for Understanding Across the IB Continuum



Lou Marchesano

Chris Overhoff

Who's in the Room?

- Position in School/District:
 - ☒ Teacher
 - ☒ IB Coordinator
 - ☒ Administrator
 - ☒ District
- IB programme:
 - ☒ PYP
 - ☒ MYP
 - ☒ DP/IBCC
- Continuum in School/District:
 - ☒ PYP-MYP
 - ☒ MYP-DP
 - ☒ PYP-MYP-DP

Education is what
remains when we
have forgotten all
that we have
been taught.

~George Savile

THEREFORE

What is the
implication for
how we
design
instruction and
assessment?

What do we
mostly
assess?

What remains
or what is
forgotten?

What is it saying? Rephrase in own words

What do you think about what it says?

How do you feel about what it says?

Why might it be right; why might it be wrong?

The Structure of Knowledge

**Traditional Classroom
as
Two Dimensional:
Information
and
Skills**

Generalization or Principle

PYP: Central Idea

MYP: Inquiry [Concept] Statement

DP: Essential Idea and Understandings

**What does assessment
look like when the
focus of instruction is
Topic and Facts?**

• Opportunity • Challenges • Conflict

Topics

Topics

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**Westward Movement in
The Americas in 19th century**

**Settlers move west
for profits from trapping,
gold, new lands to settle.**

**Clashes resulted between
settlers and First Nations
who lose land and resources**

Types of Learning Goals:

Acquisition: KNOW

Acquire factual information and basic skills

Meaning Making: UNDERSTAND

Help learners construct meaning (come to understand) of important ideas and processes

Transfer: DO

Support learners' ability to transfer their learning autonomously and effectively in new situations

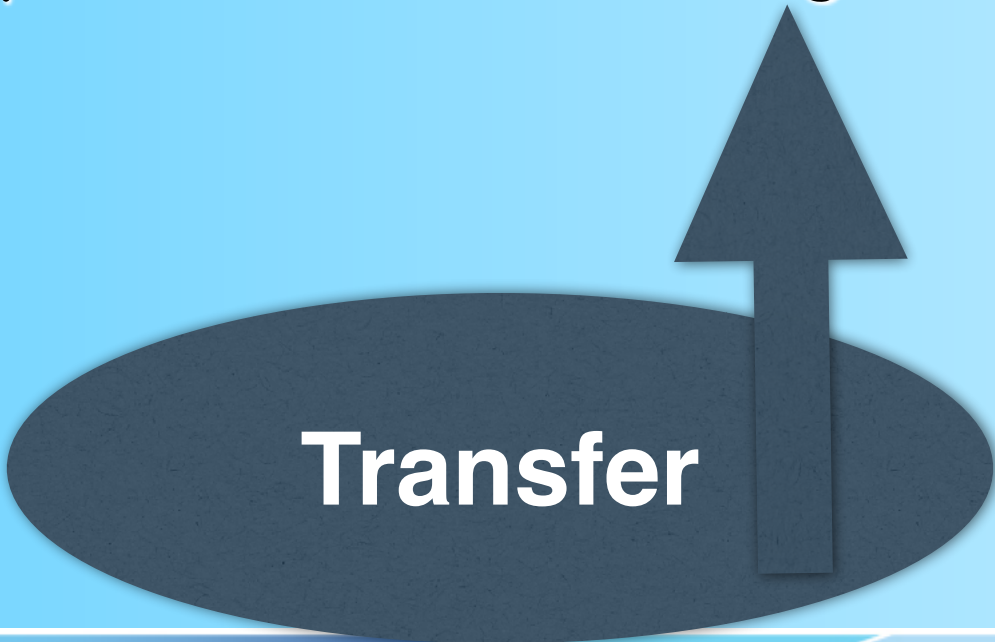
Essential Questions: Opening Doors to Student Understanding.
McTighe and Wiggins ASCD 2013 p173-174

What are examples of assessment for each learning goal?
What do you want to KNOW, UNDERSTAND, and DO as a result of a lesson?

We can build rubrics that measure the depth of understanding and assess all 3 learning goals.

- ☒ State the what you learned (who and when did people migrate).
- ☒ Describe the situation.
- ☒ Explain why you think they mig
- ☒ Analyze and Evaluate the pros and cons of migration.

Score	Descriptor
1-2	<u>State</u> the 3 Learning Goals
3-4	<u>Describe</u> the Goals (detailed account)
5-6	<u>Explain</u> why each is important (causes/reasons)
7-8	<u>Analyze</u> how each is used <u>Evaluate</u> the extent is currently used in your school



Command terms	MYP definitions	Evaluate	Assess the implications and limitations; make judgments about the ideas, works, solutions or methods in relation to selected criteria.
Analyse	Break down in order to bring out the essential elements or structure. To identify parts and relationships, and to interpret information to reach conclusions.	Examine	Consider an argument or concept in a way that uncovers the assumptions and interrelationships of the issue.
Annotate	Add brief notes to a diagram or graph.	Exemplify	Represent with an example.
Apply	Use knowledge and understanding in response to a given situation or real circumstances.	Explain	Give a detailed account including reasons or causes.
Appraise	Evaluate, judge or consider text or a piece of work.	Explore	Undertake a systematic process of discovery.
Argue	Challenge or debate an issue or idea with the purpose of persuading or committing someone else to a particular stance or action.	Investigate	Observe, study, or make a detailed and systematic examination, in order to establish facts and reach new conclusions.
Calculate	Obtain a numerical answer showing the relevant stages in the working.	Justify	Give valid reasons or evidence to support an answer or conclusion.
Classify	Arrange or order by class or category.	Label	Add title, labels or brief explanation(s) to a diagram or graph.
Comment	Give a judgment based on a given statement or result of a calculation.	List	Give a sequence of brief answers with no explanation.
Compare	Give an account of the similarities between two (or more) items or situations, referring to both (all) of them throughout.	Measure	Find the value for a quantity.
Compare and contrast	Give an account of the similarities and differences between two (or more) items or situations, referring to both (all) of them throughout.	Outline	Give a brief account.
Construct	Develop information in a diagrammatic or logical form.	Predict	Give an expected result of an upcoming action or event.
Contrast	Give an account of the differences between two (or more) items or situations, referring to both (all) of them throughout.	Present	Offer for display, observation, examination or consideration.
Deduce	Reach a conclusion from the information given.	Prove	Use a sequence of logical steps to obtain the required result in a formal way.
Define	Give the precise meaning of a word, phrase, concept or physical quantity.	Recall	Remember or recognize from prior learning experiences.
Demonstrate	Prove or make clear by reasoning or evidence, illustrating with examples or practical application.	Reflect	Think about deeply; consider.
Derive	Manipulate a mathematical relationship to give a new equation or relationship.	Recognize	Identify through patterns or features.
Describe	Give a detailed account or picture of a situation, event, pattern or process.	Show	Give the steps in a calculation or derivation.
Design	Produce a plan, simulation or model.	Sketch	Represent by means of a diagram or graph (labelled as appropriate). The sketch should give a general idea of the required shape or relationship, and should include relevant features.
Determine	Obtain the only possible answer.	Solve	Obtain the answer(s) using appropriate methods.
Discuss	Offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence.	State	Give a specific name, value or other brief answer without explanation or calculation.
Distinguish	Make clear the differences between two or more concepts or items.	Suggest	Propose a solution, hypothesis or other possible answer.
Document	Credit sources of information used by referencing (or citing) following one recognized referencing system. References should be included in the text and also at the end of the piece of work in a reference list or bibliography.	Summarize	Abstract a general theme or major point(s).
		Synthesize	Combine different ideas in order to create new understanding.
		Use	Apply knowledge or rules to put theory into practice.

Forms of Higher-Order Thinking

- 📌 **Transfer:** students can apply knowledge and skills developed during learning to new contexts (new to them).
- 📌 **Critical Thinking:** apply wise judgment or produce a reasoned critique; to reason, reflect, and make sound decisions.
- 📌 **Problem Solving:** identify and solve problems in their academic work and in life.

Susan Brookhart: *How to Assess Higher Order Thinking Skills in Your Classroom*, ASCD, 2010

Assessing for Understanding

	Transfer	Problem Solving	Critical Judgement	Score
LOW ↓	In Familiar w/ Guidance ↓	Simple w/ Guidance ↓	Recall/State ↓	1-2
LOW MID ↓	In Familiar ↓	Simple Begin Complex ↓	Describe ↓	3-4
MID HIGH ↓	In Variety of Familiar ↓	Complex ↓	Explain ↓	5-6
HIGH	In Unfamiliar	Variety of Challenging Complex	Analyze Evaluate	7-8

Adapted from Susan Brookhart and MYP assessment rubrics by Lou Marchesano

	Frequency	Quality	Problem Solving	Transfer	Critical Thinking
1-2	seldom, few, little, limited, partial, rarely	w/ guidance, basic, limited, attempt, minimal	simple with guidance	in familiar with guidance	state, recall, label, find, list, define
3-4	sometimes, occasionally, some, partial, at times	simple, adequate	simple and beginning complex	in familiar	describe, apply, distinguish, outline, use
5-6	usually, often, generally, most, range	satisfactory, sufficient, good, competent, appropriate, considerable	simple and complex	in variety of familiar and beginning to suggest in unfamiliar	explain, deduce, interpret, compare
7-8	wide range, always, consistently, completely	excellent, insightful, effectively, perceptive, illustrative, detailed, accurately	challenging complex	variety of familiar and unfamiliar	analyze, discuss, evaluate, justify, create, design

12TH Grade
Describe Recognize
Explain State
Analyze
Synthesize Evaluate

Frequency	Quality	Transfer/ Problem Solving	Critical Thinking (10th grade)
seldom, few, little, limited, partial, rarely	w/ guidance, basic, limited, attempt, minimal	simple in familiar	state, recall, label, find, list, define
sometimes, occasionally, some, partial, at times	simple, adequate	simple and beginning complex familiar	describe, apply, distinguish, outline, use
usually, often, generally, most	satisfactory, sufficient, good, competent, detailed, appropriate, considerable	simple and complex in familiar	discuss, explain, deduce, interpret, compare
always, consistently, completely	excellent, insightful, effectively, perceptive, illustrative, accurately	challenging complex including unfamiliar	analyze, evaluate, justify, create, design

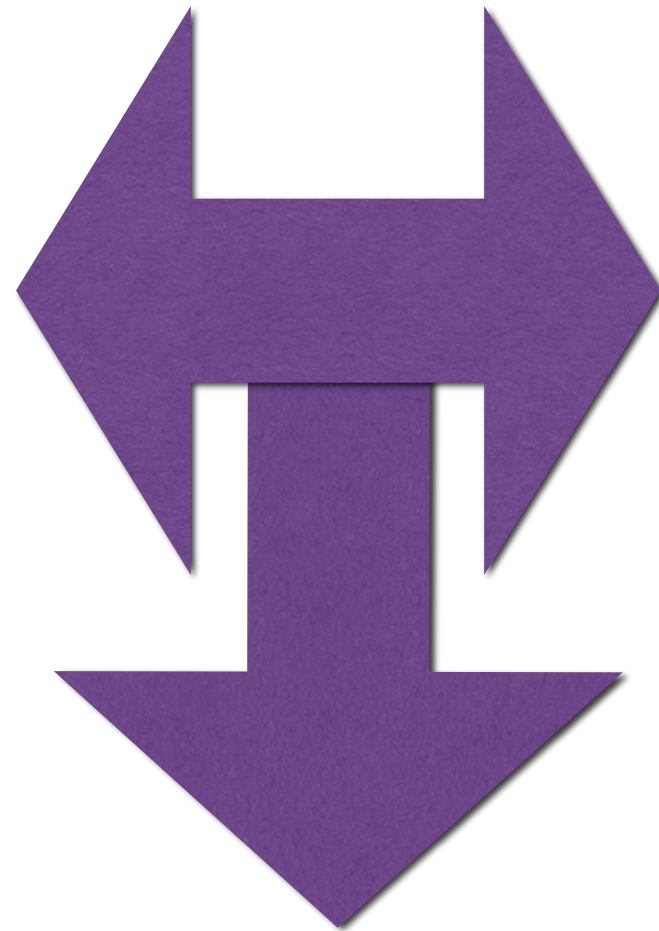
1-2	Recognizes the relationship or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
3-4	Outlines the relationship or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
5-6	Describes the relationship or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
7-8	Explain the relationship or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.

1. Cite accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
2. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.

Types of Learning Goals:

**Learning
Information
& Skills
(Acquisition)**

**Building
Conceptual
Understanding**



Transfer
to New and Unfamiliar Situation
Novel Solutions to Persistent Problems

**PYP SAMPLE General Subject Criteria
based on Marzano Scale and MYP Assessment Criteria***

0	Does not reach any of the descriptions below
1	I. Student demonstrates a partial understanding of the required knowledge, skills, and concepts of the material learned; II. Student shows limited understanding of what was taught in class and is able to apply knowledge and skills in a familiar situations with support ; III. Student demonstrates partial understanding of the simpler details and processes and some of the more complex ideas and processes with support .
2	I. Student demonstrates understanding of the simple required knowledge, skills, and concepts of the material learned; II. Student shows some understanding of the more complex ideas and processes and is able to apply knowledge and skills in most familiar situations; III. Student demonstrates understanding of the simpler details and processes and some of the more complex ideas and processes.
3	I. Student demonstrates good understanding of the required knowledge, skills, and concepts of the material learned; II. Student understands what was taught in class and is able to apply knowledge and skills in a variety of familiar situations; III. There are no major errors or omissions regarding any of the information and/or processes (simple or complex) that were explicitly taught.
4	I. Student demonstrates a consistent and thorough understanding of the required knowledge, skills, and concepts of the material learned; II. Student makes in-depth inferences and applications that go beyond what was taught in class and is able to apply knowledge and skills in a wide variety of situations including the unfamiliar ; III. Student demonstrates originality and insight and consistently produces work of high quality .

**developed by Lou Marchesano*

**Learning Over Time
; Copyright 2004**

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	Frequency	Quality	Transfer/Problem Solving	Thinking Level
1-2	seldom, few, little, limited, partial, rarely	with support, basic, attempt	simple familiar	state, recall, label, find, list, define
3-4	sometimes, occasionally, some, partial, at times	simple, adequate	simple familiar	describe, apply, discuss, distinguish, outline, use
5-6	usually, often, generally, most	satisfactory, sufficient, good, detailed, appropriate, considerable	complex (variety of) familiar	explain, deduce, interpret, deduce, compare
7-8	always, consistently, completely	excellent, insightful, effectively, perceptive, illustrative, accurately	complex including unfamiliar	analyze, evaluate, justify, create, design

PYP Summative Rubric: Understanding of Central Idea
Central Idea: Challenges and opportunities may lead to migration

0	Does not reach any of the descriptions below	
1-2	I. Student demonstrates a partial understanding of the required knowledge, skills, and concepts of the material learned; II. Student shows limited understanding of what was taught in class and is able to apply knowledge and skills in a familiar situations with support ; III. Student demonstrates partial understanding of the simpler details and	I. States at least one challenge in the current location. II. States at least once reason to migrate to a specific location. III. Lists opportunities available at the new location.
<div>1</div> <div><p>Summative assessment task:</p><p>What are the possible ways of assessing students' understanding of the central idea? What evidence, including student-initiated actions, will we look for?</p><p>You are the leader of a group of people. As the leader, it is your job to persuade them to migrate to a new area. You will need to include/explain:</p><ul style="list-style-type: none">• At least 2 challenges in your current location• The area you will migrate to• At least 2 reasons you should all migrate there• At least 3 opportunities that will be available that are not currently available where you live now<p>You may choose how to persuade them (speech, power point, iMovie, etc.)</p></div>		I. Describes at least one challenges in the current location. II. Describes at least one reason to migrate to a specific location. III. Identifies opportunities that are available at the new location.
		I. Explain at least two challenges in current location II. Explains at least two reasons to migrate to a specific location. III. Generally explains at least three opportunities available at the new location
		I. Completely explains two or more challenges in the current locattion II. Thoroughly explains two or more reasons to migrate to a specific location. III. Justifies at least three opportunities not previously discussed in class that are available at this new location.
		Identifies: Provide an answer from a number of possibilities. Recognize and state briefly a distinguishing fact or feature. Explain: Give a detailed account including reasons or causes. Justify: Give valid reasons or evidence to support an answer or conclusion.

PYP Social Studies Skills B & E [Thinking Critically]

- Use and analyse evidence from a variety of historical, geographical and societal sources
- Assess the accuracy, validity and possible bias of sources (E)

PYP Social Studies Rubric: Thinking Critically		
0	Does not reach any of the descriptions below	
1-2 1	i. Student demonstrates a partial understanding of the required knowledge, skills, and concepts of the material learned; ii. Student shows limited understanding of what was taught in class and is able to apply knowledge and skills in a familiar situations with support ; iii. Student demonstrates partial understanding of the simpler details and processes and some of the more complex ideas and processes with support .	I. States evidence from historical, geographical or societal sources II. States the accuracy, validity or possible bias of sources
3-4 2	I. Student demonstrates understanding of the simple required knowledge, skills, and concepts of the material learned; II. Student shows some understanding of the more complex ideas and processes and is able to apply knowledge and skills in most familiar situations; III. Student demonstrates understanding of the simpler details and processes and some of the more complex ideas and processes.	I. Describes evidence from historical, geographical or societal sources II. Describes the accuracy, validity or possible bias of sources
5-6 3	I. Student demonstrates good understanding of the required knowledge, skills, and concepts of the material learned; II. Student understands what was taught in class and is able to apply knowledge and skills in a variety of familiar situations; III. There are no major errors or omissions regarding any of the information and/or processes (simple or complex) that were explicitly taught.	I. Satisfactorily analyses evidence from a variety of historical, geographical and societal sources II. Satisfactorily assesses or evaluates the accuracy, validity or possible bias of sources
7-8 4	I. Student demonstrates a consistent and thorough understanding of the required knowledge, skills, and concepts of the material learned; II. Student makes in-depth inferences and applications that go beyond what was taught in class and is able to apply knowledge and skills in a wide variety of situations including the unfamiliar ; III. Student demonstrates originality and insight and consistently produces work of high quality .	I. Effectively analyses evidence from a wide variety of historical, geographical and societal sources II. Effectively assesses and evaluates the accuracy, validity and possible bias of sources

MYP Science, Year 5 (10th Grade)

Criterion A:

Knowing and understanding

Maximum: 8

At the end of year 5, students should be able to:

- i. explain scientific knowledge
- ii. apply scientific knowledge and understanding to solve problems set in familiar and unfamiliar situations
- iii. analyse and evaluate information to make scientifically supported judgments

SOLVE PROBLEMS

Interpret: Use knowledge and understanding to recognize trends and draw conclusions from given information.

Analyse: Break down in order to bring out the essential elements or structure. To identify parts and relationships, and to interpret information to reach conclusions.

Evaluate: Assess the implications and limitations; make judgments about the ideas, works, solutions or methods in relation to selected criteria.

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Achievement level	Level descriptor
0	The student does not reach a standard for any of the descriptors below.
1–2	<p>The student is able to:</p> <ul style="list-style-type: none"> i. state scientific knowledge ii. apply scientific knowledge and understanding to suggest solutions to problems set in familiar situations iii. interpret information to make judgments.
3–4	<p>The student is able to:</p> <ul style="list-style-type: none"> i. outline scientific knowledge ii. apply scientific knowledge and understanding to solve problems set in familiar situations iii. interpret information to make scientifically supported judgments.
5–6	<p>The student is able to:</p> <ul style="list-style-type: none"> i. describe scientific knowledge ii. apply scientific knowledge and understanding to solve problems set in familiar situations and suggest solutions to problems set in unfamiliar situations iii. analyse information to make scientifically supported judgments.
7–8	<p>The student is able to:</p> <ul style="list-style-type: none"> i. explain scientific knowledge ii. apply scientific knowledge and understanding to solve problems set in familiar and unfamiliar situations iii. analyse and evaluate information to make scientifically supported judgments.

CRITICAL JUDGMENTS

INDIV & SOC

Criterion A: Knowing and understanding

Maximum: 8

At the end of year 5, students should be able to:

- i. use a wide range of terminology in context
- ii. demonstrate knowledge and understanding of subject-specific content and concepts through developed descriptions, explanations and examples.

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors below.
1–2	The student: <ol style="list-style-type: none"> i. uses limited relevant terminology ii. demonstrates basic knowledge and understanding of content and concepts with minimal descriptions and/or examples.
3–4	The student: <ol style="list-style-type: none"> i. uses some terminology accurately and appropriately ii. demonstrates adequate knowledge and understanding of content and concepts through satisfactory descriptions, explanations and examples.
5–6	The student: <ol style="list-style-type: none"> i. uses a range of terminology accurately and appropriately ii. demonstrates substantial knowledge and understanding of content and concepts through accurate descriptions, explanations and examples.
7–8	The student: <ol style="list-style-type: none"> i. consistently uses a wide range of terminology effectively ii. demonstrate detailed knowledge and understanding of content and concepts through thorough, accurate descriptions, explanations and examples.

Frequency	Quality
seldom, few, little, limited, partial, rarely	w/ guidance, basic, limited, attempt, minimal
sometimes, occasionally, some, partial, at times	simple, adequate
usually, often, generally, most, range	satisfactory, sufficient, good, competent, appropriate, considerable
wide range, always, consistently, completely	excellent, insightful, effectively, perceptive, illustrative, detailed, accurately

MATH

Criterion A: Knowing and understanding

Maximum: 8

At the end of year 5, students should be able to:

- i. **select** appropriate mathematics when solving problems in both familiar and unfamiliar situations
- ii. **apply** the selected mathematics successfully when solving problems
- iii. **solve** problems correctly in a variety of contexts.

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors below.
1–2	The student is able to: <ul style="list-style-type: none">i. select appropriate mathematics when solving simple problems in familiar situationsii. apply the selected mathematics successfully when solving these problemsiii. generally solve these problems correctly.
3–4	The student is able to: <ul style="list-style-type: none">i. select appropriate mathematics when solving more complex problems in familiar situationsii. apply the selected mathematics successfully when solving these problemsiii. generally solve these problems correctly.
5–6	The student is able to: <ul style="list-style-type: none">i. select appropriate mathematics when solving challenging problems in familiar situationsii. apply the selected mathematics successfully when solving these problemsiii. generally solve these problems correctly.
7–8	The student is able to: <ul style="list-style-type: none">i. select appropriate mathematics when solving challenging problems in both familiar and unfamiliar situationsii. apply the selected mathematics successfully when solving these problemsiii. generally solve these problems correctly.

Problem Solving	Transfer
simple with guidance	in familiar with guidance
simple and beginning complex	in familiar
simple and complex	in variety of familiar and beginning to suggest in unfamiliar
challenging complex	variety of familiar and unfamiliar

DP BIOLOGY OBJECTIVES

1. Demonstrate **knowledge and understanding** of:
 - a. facts, concepts and terminology
 - b. methodologies and techniques
 - c. communicating scientific information
2. **Apply**:
 - a. facts, concepts and terminology
 - b. methodologies and techniques
 - c. methods of communicating scientific information.
3. **Formulate, analyse and evaluate**:
 - a. hypotheses, research questions and predictions
 - b. methodologies and techniques
 - c. primary and secondary data
 - d. scientific explanations.
4. Demonstrate the appropriate research, experimental, and personal **skills** needed to carry out insightful and ethical investigations.

DP HISTORY OBJECTIVES

Assessment objective 1: **Knowledge and understanding**

- Demonstrate detailed, relevant and accurate historical knowledge.
- Demonstrate understanding of historical concepts and context.
- Demonstrate understanding of historical sources. (Internal

assessment and paper 1)

	Frequency	Quality	Problem Solving	Transfer	Critical Thinking
1-2	seldom, few, little, limited, partial, rarely	w/ guidance, basic, limited, attempt, minimal	simple with guidance	in familiar with guidance	state, recall, label, find, list, define
3-4	sometimes, occasionally, some, partial, at times	simple, adequate	simple and beginning complex	in familiar	describe, apply, distinguish, outline, use
5-6	usually, often, generally, most, range	satisfactory, sufficient, good, competent, appropriate, considerable	simple and complex	in variety of familiar and beginning to suggest in unfamiliar	explain, deduce, interpret, compare
7-8	wide range, always, consistently, completely	excellent, insightful, effectively, perceptive, illustrative, detailed, accurately	challenging complex	variety of familiar and unfamiliar	analyze, discuss, evaluate, justify, create, design

inquiry. (Internal assessment)

- Demonstrate evidence of research skills, organization, referencing and selection of appropriate sources. (Internal assessment)

DP HISTORY OBJECTIVES

Assessment objective 1: Knowledge and understanding

- Recall and select relevant historical knowledge
- Demonstrate an understanding of historical context
- Demonstrate an understanding of historical processes: cause and effect; continuity and change
- Understand historical sources (SL/HL paper 1)
- Deploy detailed, in-depth knowledge (HL paper 3)
- Demonstrate knowledge and understanding of a specific historical topic (IA)

Assessment objective 2: Application and interpretation

- Apply historical knowledge as evidence
- Show awareness of different approaches to, and interpretations of, historical issues and events
- Compare and contrast historical sources as evidence (SL/HL paper 1)
- Present a summary of evidence (IA)

Assessment objective 3: Synthesis and evaluation

- Evaluate different approaches to, and interpretations of, historical issues and events
- Evaluate historical sources as evidence (SL/HL paper 1 and IA)
- Evaluate and synthesize evidence from both historical sources and background knowledge (SL/HL paper 1)
- Develop critical commentary using the evidence base (SL/HL paper 2 and HL paper 3)
- Synthesize by integrating evidence and critical commentary (HL paper 3)
- Present an analysis of a summary of evidence (IA)

Assessment objective 4: Use of historical skills

- Demonstrate the ability to structure an essay answer, using evidence to support relevant, balanced and focused historical arguments (SL/HL paper 2 and HL paper 3)
- Demonstrate evidence of research skills, organization and referencing (IA)

KNOWLEDGE AND UNDERSTANDING

- Recall and select relevant historical knowledge
- Demonstrate an understanding of historical context
- Demonstrate an understanding of historical processes: cause and effect
- Understand historical sources (SL/HL paper 1)
- Deploy detailed, in-depth knowledge (HL paper 3)
- Demonstrate knowledge and understanding of a specific historical

APPLICATION AND INTERPRETATION

- Apply historical knowledge as evidence
- Show awareness of different approaches to, and interpretations of,
- Compare and contrast historical sources as evidence (SL/HL paper 1)
- Present a summary of evidence (IA)

SYNTHESIS AND EVALUATION

- Evaluate different approaches to, and interpretations of, historical
- Evaluate historical sources as evidence (SL/HL paper 1 and IA)
- Evaluate and synthesize evidence from both historical sources and
- Develop critical commentary using the evidence base (SL/HL paper 1)
- Synthesize by integrating evidence and critical commentary (HL paper 3)
- Present an analysis of a summary of evidence (IA)

SYNTHESIS AND EVALUATION

- Evaluate different approaches to, and interpretations of, historical issues and events
- Evaluate historical sources as evidence
- Evaluate and synthesize evidence from both historical sources and background knowledge (

0

The student does not reach a standard described by any of the descriptors below.

1-2

- I. **Discuss** different approaches to, or interpretations of, historical issues and events
- II. **Describe** historical sources as evidence
- III. **Present** evidence from both historical sources and background knowledge

3-4

- I. **Analyse** different approaches to, or interpretations of, historical issues and events
- II. **Explain** historical sources as evidence
- III. **Synthesize** evidence from both historical sources and background knowledge

5-6

- I. **Analyses** and **Evaluate** a **range** of different approaches to, and interpretations of, historical issues and events
- II. **Analyse** historical sources as evidence
- III. **Evaluate** and **synthesize** evidence from both historical sources and background knowledge

- I. **Analyses** and **Effectively evaluate** a **wide range** of different approaches to, and interpretations of, historical issues and events
- II. **Evaluate** historical sources as evidence
- III. **Effectively evaluate** and **synthesize** evidence from both historical sources and background knowledge

Chemistry guide

First assessment 2016

Identity and function depend on connections formed

Essential idea: Physical and chemical properties depend on the ways in which different

1.1 Introduction to the particulate nature of matter and chemical change

Nature of science:

Making quantitative measurements with replicates to ensure reliability—definite and mult

Understandings:

- Atoms of different elements combine in fixed ratios to form compounds, which have different properties from their component elements.
- Mixtures contain more than one element and/or compound that are not chemically bonded together and so retain their individual properties.
- Mixtures are either homogeneous or heterogeneous.

Applications and skills:

- Deduction of chemical equations w
- Applicati
- Expla during c

Guidance:

- Balancing c
- Names and boili

Score	Descriptor
1-2	State
3-4	Describe
5-6	Explain
7-8	Analyze Evaluate

ACQUISITION

MEANING
MAKING

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What are the

CONNECTION

1. **Demonstrate knowledge and understanding of:**

- a. facts, concepts, and terminology
- b. methodologies and techniques
- c. communicating scientific information.

2. **Apply:**

- a. facts, concepts, and terminology
- b. methodologies and techniques
- c. methods of communicating scientific information.

3. **Formulate, analyse and evaluate:**

- a. hypotheses, research questions and predictions
- b. methodologies and techniques
- c. primary and secondary data
- d. scientific explanations.

4. **Demonstrate the appropriate research, experimental, and personal skills** necessary to carry out insightful and ethical investigations.

Assessing for Understanding

Of course “understanding” can be assessed! Assessment for understanding uses factually specific information to support conceptual understanding, as well as for assessing the quality of thinking brought to the task. Assessments that call for the transfer of understanding through time, across cultures, and across situations also indicate depth of understanding. **It is clear that the call for evidence of deeper understanding in education today requires changes in traditional assessment practices.**

Criteria-Related Scoring

Student Y

Individuals and Society	Criteria							Current achievmt level	Avg Grade	
Knowing & Understanding	A	1	1	4	4	3	4	4	2.8	
Investigating	B	2	4	3	4	5	5	5	3.8	
Communicating	C	3	5	3	5	4	4	4	4	
Thinking Critically	D	1	1	1	3	3	3	3	2	
		TOTAL							16	12.6

MYP Humanities Assessment Criteria

Assessment criteria	Levels of achievement	Student X	Student Y	Student Z
Criterion A: Knowing and Understanding	0–8	2	4	7
Criterion B: Investigating	0–8	3	5	8
Criterion C: Thinking Critically	0–8	2	4	7
Criterion D: Communicating	0–8	1	3	8
<i>TOTAL POSSIBLE SCORE</i>	32	8	16	30

Boundaries	School Grade	Grade	Descriptor
0		0	No achievement in terms of the objectives
1-5	F	1	Produces work of very limited quality . Conveys many significant misunderstandings or lacks understanding of most concepts and skills. Very rarely demonstrates critical or creative thinking. Very inflexible, rarely using knowledge or skills.
6-9	D	X	2 Produces work of limited quality . Expresses misunderstandings or significant gaps in understanding for many concepts and contexts. Infrequently demonstrates critical or creative thinking. Generally inflexible in the use of knowledge and skills, infrequently applying knowledge and skills.
10-14	C		3 Produces work of an acceptable quality . Communicates basic understanding of many concepts and contexts with occasionally significant misunderstandings or gaps. Begins to demonstrate some basic critical and creative thinking. Is often inflexible in the use of knowledge and skills, requiring support even in familiar classroom situations.
15-18	B	Y	4 Produces good quality work. Communicates basic understanding of most concepts and contexts with few misunderstandings and minor gaps. Often demonstrates basic critical and creative thinking. Uses knowledge and skills with some flexibility in familiar classroom situations, but requires support in unfamiliar situations.
19-23		5	5 Produces generally high-quality work. Communicates reliable understanding of concepts and contexts. Demonstrates critical and creative thinking, sometimes with sophistication. Uses knowledge and skills in familiar classroom and real-world situations, and, with support, some unfamiliar real-world situations.
24-27		6	6 Produces high-quality, occasionally innovative work. Communicates extensive understanding of concepts and contexts. Demonstrates critical and creative thinking, frequently with sophistication . Uses knowledge and skills in familiar and unfamiliar classroom and real- world situations, often with independence
28-32	A	Z	7 Produces high-quality, frequently innovative work, Communicates comprehensive, nuanced understanding of concepts and contexts. Consistently demonstrates sophisticated critical and creative thinking. Frequently transfers knowledge and skills with independence and expertise in a variety of complex classroom and real-world situations.

Examples of Criterion-Related Reporting: Individual scores on scale of 0 - 8

PYP Reporting

Understanding of Central Idea: 7

Social Studies Skills:

- a. Formulate and ask questions about the past, the future, places and society 6
- b. Use and analyse evidence from a variety of historical, geographical and societal sources 5
- c. Orientate in relation to place and time 5
- d. Identify roles, rights and responsibilities in society 7
- e. Assess the accuracy, validity and possible bias of sources 4

MYP Reporting

Individuals and Society

- a. Knowing and Understanding 4
- b. Investigating 5
- c. Communicating 4
- d. Thinking Critically 3

TOTAL SCORE	16
MYP SCORE	4
SCHOOL GRADE	B-

DP Reporting

Individuals and Society

- a. Knowledge and Understanding 4
- b. Application & interpretation 5
- c. Synthesis & Evaluation 4
- d. Use of Historical Skills 3

TOTAL SCORE	16
SCHOOL GRADE	C

Time to be Inquirers:



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