Assessing Outcomes in an Inquiry Context

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Core Messages

The research-based assessment principles and practices which have demonstrated improvement in student learning include:

– Providing sensitive, constructive assessment and evaluation practices

– Creating clarity around outcomes and criteria for success

– Understanding and using appropriate and varied strategies for assessment and evaluation

– Using a variety of formative tools

– Adapting instruction in response to assessment information

– Providing effective feedback

– Actively involving students in the learning and assessment process

– Using standards-referenced [outcomes-referenced] grading and reporting

(Assessment Reform Group, 2002; Black, Harrison, Lee, Marshall & Wiliam, 2003; Brookhart, S., 2011; Clark, Owens & Sutton, 2006; Cooper, 2011; Davies, 2011; Guskey, Swan & Jung, 2011; Marzano, 2010; McMillan, Helsten, & Klinger, 2011; O'Connor, K. & Wormeli, R. , 2011; Reeves, 2008 & 2010; Schimmer, 2012; Stiggins & Chappuis, 2012; Wiliam, 2011;)

Social Studies 2
Outcomes, Indicators and Support Materials

Outcome: DR2.1

Investigate stories of significant events and persons in the local community's history to describe the contribution of those who lived in the community in earlier times.

a. Plan and implement a process to learn about the past experiences of members of the local community (e.g., talk to long term residents, view pictures or other artistic interpretations, visit an historic site).

b. Research and represent the history of the local school and the local community (e.g., events, people).

c. Describe events of the past in the local community that affect life today (e.g., Why was the current location chosen for the school? Other buildings? Why are streets or buildings named as they are?).

d. Represent ways in which life in the local community has changed over time (e.g., change of place names, demographics, services, industries, businesses, transportation networks).

e. Research the origins of, and reasons for, the names of public sites and landmarks in the local community (e.g., streets, rivers, buildings, parks).

f. Research the heritage of various individuals and groups within the community, and why people came to live in the community.

Health Education 4
Outcomes, Indicators and Support Materials

Outcome: USC4.1

Assess what healthy eating and physical activity mean for pre/adolescence.

a. Examine personal, past, and present knowledge about healthy eating and physical activity (e.g., exercise as important to health, trends such as jogging and home gyms, females and exercise/sports).

b. Investigate personal, family, community, and cultural factors that influence healthy eating (e.g., time, serving size, cultural food practices and values, water consumption, access to healthy foods.

c. Discuss factors of healthy eating over which one has control (e.g., drinking more water).

d. Explain the importance of particular eating practices, including drinking water as a thirst quencher and eating breakfast.

e. Demonstrate an understanding of healthy food choices (e.g., analyze nutritional values of particular foods) and serving sizes that support good health (see Canada's Food Guide).

f. Investigate personal, family, community, and cultural factors that influence physical activity (e.g., time, cultural practices and values, access, safety).

g. Review the health benefits of regular physical activity and the health risks of inactivity for pre/adolescence.

h. Investigate peer norms and popular trends related to healthy eating and physical activity.

i. Explore the consequences (both positive and negative) of following or resisting peer norms and/or popular trends related to eating and physical activity.

j. Investigate the physical activity opportunities in the community that benefit and/or challenge mental, socio-emotional, and spiritual well-being for pre/adolescence (e.g., develop personal gifts, and potential).

k. Investigate personal changes that need to be made for better nutrition (e.g., serving sizes, variety of foods) and appropriate amounts of physical activity (see Canada's Guide to Physical Activity).

Science 8
Outcomes, Indicators and Support Materials

Outcome: WS8.1

Analyze the impact of natural and human-induced changes to the characteristics and distribution of water in local, regional, and national ecosystems. [CP,DM]

a. Construct visual representations of the world distribution of water, and the distribution of water in Saskatchewan, including watersheds, lakes, rivers, streams, river systems, wetlands, ground water, saline lakes, and riparian areas.

b. Compare physical characteristics of surface water features, such as lakes, rivers, streams, wetlands, and riparian areas.

c. Examine the significance of water to First Nations and Métis people of Saskatchewan, including water as an essential element of life, transportation, water quality, fishing practices, and treaty rights regarding fishing.

d. Apply the concept of systems as a tool for interpreting the structure and interactions of water systems by constructing representations of systems such as the water cycle, watersheds, and continental drainage basins and showing interrelationships between parts of the system.

e. Construct a written, visual, or dramatic representation of the water cycle, including showing or explaining how a single particle of water can travel through the cycle over extended periods of time.

f. Identify possible personal, societal, economic, and environmental consequences of natural changes and human practices and technologies that pose threats to surface and/or ground water systems in Saskatchewan (e.g., vegetation removal, water and sewage treatment plants, timber harvesting, over-application of fertilizers, agricultural and urban irrigation, impervious ground cover, land alterations, mining, introduction of invasive species, shoreline erosion, fluctuating lake levels, flooding, draining and/or channelling of surface water features, and damming of rivers).

g. Research a specific human practice or technology that may pose a threat to surface and/or groundwater systems in Saskatchewan and explain how different groups in society (e.g., landowner, consumer, business owner, recreational user, fisherman, government official, and farmer) may have conflicting needs and desires in relation to the practice or technology and how those decisions or actions of different stakeholders may or may not be addressed by scientific or technological knowledge.

h. Evaluate individual and group processes used in planning, problem solving, decision making, and completing a task related to studying threats to water systems, such as accepting various roles in a group, sharing responsibility for carrying out decisions, and seeking consensus before making decisions.

English Language Arts 6
Outcomes, Indicators and Support Materials

Outcome: CC6.9

Prepare a teacher-guided inquiry report related to a stand on a topic, theme, or issue studied in English language arts.

a. Use inquiry to extend understanding of a particular topic related to the themes and issues being studied as follows

- generate key research questions to guide inquiry and seek required information and data from a variety of sources (e.g., observations, interviews, print, electronic, and video resources)
- summarize and focus personal knowledge of a topic to determine information needs
- create and follow a plan to collect and record information within a pre-established frame
- assess completeness and relevance of ideas and information
- cite more than one source, when appropriate (Use two to three informational sources to research an assigned topic.)
- evaluate the appropriateness of information for a particular audience, form, and purpose
- identify gaps in information and collect and gather additional information
- relate gathered information to prior knowledge to reach conclusion and develop point of view
- recognize and avoid plagiarism
- use the language of inquiry (e.g., "I wonder if….", 'What do I want to find out?', 'What do I need to do next?').

English Language Arts 20
Outcomes, Indicators and Support Materials

Outcome: CC 20.1

Create a range of visual, multimedia, oral, and written texts to explore:

- **identity (e.g., Relationships with Family and Others);**
- **social responsibility (e.g., Evolving Roles and Responsibilities); and**
- **social action (agency) (e.g., The Past and the Present).**

a. Connect ideas, observations, opinions, and emotions to respond to and create texts.

b. Create spoken, written, multimedia, and other representations that include:
   - a clear thesis
   - accurate, appropriate, and convincing details to support the thesis
   - a style, voice, and format that is audience and purpose appropriate
   - unity, coherence, and emphasis in a logical progression and with logical support for ideas/thesis
   - effective and clear organization patterns
   - a valid and justifiable conclusion.

c. Write a research essay (approximately six to ten pages) building on primary and secondary sources that:
   - marshals evidence in support of a clear thesis statement and related claims
   - paraphrases and summarizes, with accuracy and fidelity, the range of arguments and supports or refutes the thesis
   - cites sources correctly and documents quotations, paraphrase, and other information using standard format.

d. Conduct and present an extended inquiry/research based on a topic of the course that:
   - determines inquiry or research focus and parameters based on personal knowledge and others' expertise
   - formulates and revises questions to focus inquiry or research the topic and purpose
   - explores group knowledge and strengths to determine inquiry or research the topic, purpose, and procedures
   - develops, uses, and adapts an inquiry or research plan appropriate for content, audience, purpose, context, sources, and procedures
   - selects ideas and information from prior knowledge of the inquiry or research topic appropriate for audience, purpose, and personal perspective or focus
   - identifies and discusses the purpose and usefulness of information sources relevant to the particular inquiry or research needs

- evaluates how perspectives and biases influence the choice of information sources for inquiry or research
- accesses information using a variety of tools, skills, and sources to accomplish a particular purpose
- organizes and reorganizes information and ideas in a variety of ways (including digital) for different purposes and audiences
- summarizes and records information, ideas, and perspectives from a variety of sources using a variety of means (e.g., digital); documents sources accurately
- evaluates information for completeness, accuracy, currency, historical context, relevance, and balance of perspectives
- explains self-knowledge acquired through inquiry and explains the insights gained; explains the importance of new understanding to self and others; assesses own inquiry and research skills
- defines and narrows a problem or research topic
- gathers relevant information from a variety of print and digital sources as well as from direct observation, interviews, and surveys
- makes distinctions about the credibility, reliability, consistency, strengths, and limitations of resources, including information gathered from websites
- plans, by taking notes, creating informal outlines, and researching, using a variety of means (e.g., digital)
- connects, shapes, and clarifies ideas and understanding
- selects and connects ideas from prior knowledge, observations, and experiences
- identifies the need for additional information to supplement prior knowledge, observations, and experiences.

e. Create a website (approximately six to ten pages) to inform and foster social action regarding a local issue that:

- includes a user-friendly navigation scheme with no dead-end pages
- provides clear site identification through design elements
- is in language and style appropriate for web content
- incorporates appropriate original graphics and multimedia
- is engaging and promotes positive user action.

Inquiry Rubric

CATEGORY	4	3	2	1
Questions	Identified interesting, open-ended questions leading to an in-depth inquiry.	Identified clear, open-ended questions leading to inquiry.	Identified simple questions that could be easily answered.	Needed support to identify questions appropriate for inquiry.
Sources	A wide variety of credible sources were accessed—print, digital, visual, human. All sources (information and graphics) are accurately documented in the desired format.	A variety of credible sources were accessed—print, digital, visual, human. All sources (information and graphics) are accurately documented, but a few are not in the desired format.	A limited number of sources were accessed—print, digital, visual, human. All sources are documented, but many are not in the desired format.	Support was needed to access and evaluate sources. Some sources are not accurately documented.
Documentation	Documentation is legibly recorded in student's own words and is well organized and readily retrievable by student.	Documentation is recorded legibly in student's own words and is somewhat organized.	Documentation is recorded.	Documentation is recorded only with peer/teacher assistance and reminders.
Quality of Information	Information clearly relates to the topic and completely answers inquiry questions. Information includes comprehensive supporting details and/or examples.	Information clearly relates to the main topic and the inquiry questions. Information provides sufficient supporting details and/or examples.	Information relates to the main topic. Some details and/or examples are provided.	Information is unclear and may not answer the inquiry questions. Little detail is provided.
Organization of Information	Information is very well organized and clearly presented	Information is clearly organized and presented.	Information is somewhat organized. Presentation may lack clarity.	The information appears to be disorganized.
Diagrams & Illustrations (IF USED)	Diagrams and illustrations are neat, accurate and add to the audience's understanding of the topic.	Diagrams and illustrations are accurate and add to the audience's understanding of the topic.	Diagrams and illustrations are neat and accurate and sometimes add to the audience's understanding of the topic.	Diagrams and illustrations are not accurate OR do not add to the audience's understanding of the topic.

Rubric Wordsmith

Level / Category	4 Excellent	3 Proficient	2 Adequate	1 Limited
Relevancy of information	pertinent	relevant	general	trivial
	significant	relevant	superficial	irrelevant
	insightful	meaningful	appropriate	superficial
	significant	relevant	predictable	vague
	insightful	convincing	believable	questionable
	perceptive	thoughtful	appropriate	superficial
	precise	correct	partially correct	incorrect
	compelling	convincing	plausible	sketchy
Degree of detail	precise	accurate	partial	vague
	comprehensive	thorough	superficial	little or no
	precise	relevant	generally accurate	superficial
	comprehensive	complete	partial	sketchy
	purposeful	focused	appropriate	irrelevant
	in-depth	substantial	partial	incomplete
	rich and detailed	specific	simplistic	undeveloped

Level / Category	4 Excellent	3 Proficient	2 Adequate	1 Limited
Compares/ analyzes data	accurate	reasonable	partial	flawed
	insightful	logical	simplistic	unsupported
	astute	probable	plausible	inaccurate
	insightful	relevant	basic	irrelevant
Questions/ predictions	perceptive	focused	reasonable	irrelevant
	insightful	logical	predictable	unrelated
	purposeful	relevant	reasonable	vague
	precise	effective	appropriate	confusing
Organization	skillful	systematic	simplistic	haphazard
	purposeful	logical	methodical	ineffective

Reflecting on Your Learning

1. Using the following margin symbols:

    - √ I do this

    - ! I need to start doing this

    - ? I have a question about this

    - ☺ I need more time to think about this

2. Read and code each of the research-based assessment principles and practices.

    - Providing sensitive, constructive assessment and evaluation practices

    - Creating clarity around outcomes and criteria for success

    - Understanding and using appropriate and varied strategies for assessment and evaluation

    - Using a variety of formative tools

    - Adapting instruction in response to assessment information

    - Providing effective feedback

    - Actively involving students in the learning and assessment process

    - Using standards-referenced [outcomes-referenced] grading and reporting

3. Set a goal related to one of these principles and practices for yourself between now and the end of the year.

4. Share that goal with a trusted colleague and set a date to speak with that colleague— what you tried; student response; and your reflection on what you learned.