

Developing Researcher REACTiONS

Research is integral to inquiry – mainly in, but not limited to, the Investigate stage of the inquiry process – and aims at “generating evidence for [answering] the chosen/ given question through empirical investigations of various kinds and/ or from consulting relevant [and reliable] sources” (Wells, 2001, *Learning & Teaching Through Inquiry*, p. 191). By definition, then, all research is thoughtful, but only thoughtful research tasks actually develop researchers.

Level	Research Skill Level	Researcher REACTiONS	Provoking Researcher REACTiONS
1 Year 4+ (Grade 3+)	Fact-finding • Finding simple facts	Recalling • Recalling and reporting the main facts discovered • Making no attempt to analyse the information or reorganize it for comparison purposes	arrange; cluster; define; find; identify; label; list; locate; match; name; recall; recount; repeat; reproduce; select; sort; state
2 Year 5+ (Grade 4+)	Asking / Searching • Finding answers to questions	Explaining • Recalling and restating, summarizing, or paraphrasing information • Finding example, explaining events or actions • Understanding the information well enough to be able to put it in a new context	apply; cite; complete; convert; demonstrate; describe; document; dramatize; emulate; estimate; expand; explain; expound; express; generalize; give example; illustrate; imagine; paraphrase; portray; prepare; present; produce; propose; restate; review; search; show; solve; speculate; summarize; support; survey; translate; use
3 Year 6+ (Grade 5+)	Examining / Organising • Reorganising information	Analysing • Breaking a subject into its component parts (causes, effects, problems, solutions) • Comparing one part with another	analyse; apply; arrange; associate; break down; categorize; change; characterize; classify; compare; compile; construct; contrast; correlate; diagram; differentiate; discover; discriminate; dissect; distinguish; divide; examine; experiment; extend; group; infer; interpret; manipulate; map; modify; organize; outline; plan; question; reconstruct; relate; represent; revise; rewrite; scrutinize; select; separate; sequence; sift; simplify; solve; transplant; uncover; utilize; verify
4 Year 8+ (Grade 7+)	Evaluating / Deliberating • Evaluating information and conclusions	Challenging • Making critical judgments about subject based on internal or external standards • (Standards may be student’s own, or teacher or class may decide criteria. “I didn’t like it” or “I don’t believe it” are not enough)	appraise; argue; assess; compare; criticize; debate; defend; determine; discriminate; evaluate; grade; investigate; judge; justify; modify; prioritize; rank; rate, refute; review; support; value; weigh
5 Year 11+ (Grade 10+)	Integrating / Concluding • Drawing conclusions	Transforming • Bringing together more than one piece of information, forming own conclusion, and presenting that conclusion in a creative new format	blend; build; combine; compile; compose; conclude; construct; convince; create; decide; design; develop; dramatize; elaborate; express; forecast; formulate; generate; imagine; modify; persuade; plan; predict; pretend; produce; propose; revise; speculate; structure
6 Year 13+ (Grade 12+)	Conceptualising • Creating original solutions	Synthesising • Creating an entirely original product based on a new concept or theory	build a model program; create; design; develop; devise; generate; hypothesize; invent; propose; theorize

Level	Sample Research Assignments by Researcher Skill Level
1	<ul style="list-style-type: none"> • Select 5-10 accomplishments of the person you have researched. Produce a “Hall of Fame” (or “Hall of Shame”) poster. • List five “Do’s and Don’ts” about a social issue that you have researched. • Find facts about your subject for each category determined by the class. Contribute your facts to the “Fact File” on your class’s web page. • Select appropriate pictures from discarded magazines or find appropriate pictures online to produce a collage or picture essay that portrays your researched subject. • Based on your research, state five questions a television reporter might ask if he/she were preparing a feature news story on your subject. Answer the questions. • Define key words about your research subject. Embed hot links in your Web page to your definitions in a class glossary page.
2	<ul style="list-style-type: none"> • Write and present a BBC News report about a particular event or person you researched. • Keep a journal in which you present your reactions, thoughts, and feelings about your research. • Show the events of your research on a map and explain the importance of each event. • Complete each of the following statements: My research made me wish that...; realize that...; decide that...; wonder about...; see that...; believe that...; feel that...; hope that... • Cut out newspaper or magazine ads that would have interested an historical figure you have researched. Explain their importance to the historical figure. • Prepare a job application or resume for a person you have researched.
3	<ul style="list-style-type: none"> • Create a timeline for the events which led up to the situation you researched. Correlate social, political, religious, educational, technological events. • Transplant an event or famous person from one time period, country, or ecological system to another time or place. Explain the changes that would occur. • Compare your lifestyle and neighbourhood to those of people living in the time you have researched. • Write a letter to the editor scrutinizing a local issue. Support your opinions with specific details from your research. • Write a recipe for an historical event by researching, analysing to pick out the main ingredients, and sequencing them in order with mixing instructions. • Organize and create a travel brochure to attract visitors to the place or time period you have researched. Include all essential information plus fascinating details. • Use a graphic organizer to outline the main ideas of your subject visually, showing relationships between ideas and supporting points.
4	<ul style="list-style-type: none"> • Act as an attorney and argue to punish or acquit an historical character or a country for a crime or misdeed. • Defend your judgment that a research subject (if it is an invention, machine, or some other item or document) should be placed in a time capsule to be dug up in 100 years. • Debate the issues of a controversial research topic with a classmate who researched the same topic. • Evaluate the information available in print and electronic format on your topic, based on clear evaluation criteria. Compile an <i>annotated</i> bibliography of valuable sources. • Investigate a societal problem. Write a report card that justifies a grade for each proposed or attempted solution (e.g., cost, feasibility, probable success, ease of implementation). • Using a job evaluation form, rate a public person’s performance of his/her job based on your research. Justify your ratings. • Create an editorial cartoon about your researched subject that makes clear your judgment about the subject.
5	<ul style="list-style-type: none"> • Design and produce a television commercial or a whole advertising campaign that presents your research results to the class. • Write a poem or short story that expresses your new knowledge or insight. • Dramatize a famous historical event. The dramatization should make clear your interpretation of the event. • Compose a speech that an historical person might deliver about a present-day national issue OR a speech that a current public person might deliver about an historical issue. • Predict what your researched person would take on a trip. Design the itinerary. Pack that person’s suitcase and present each item to the class with an explanation of significance. • Research a specific event, person, or aspect of the culture of an historical or modern era. Write and produce a segment for a morning news show on your topic. • Create a board game that incorporates the major conclusions you reached about your researched subject.
6	<ul style="list-style-type: none"> • Develop a model program to address a social problem that you have researched. • Create a new country and hypothesize about the change in the balance of power in the world. • Design a new building, machine, process, or experiment based on theories developed from your research. • Develop proposed legislation to address national, state, or local issues. • Develop a community project that addresses an issue of local concern. • Design and carry out a science project that builds on the previous knowledge that you have discovered through research and tests a new concept or theory.