

Depth – exploration of content within a discipline to include analyzing from the concrete to the abstract, familiar to the unfamiliar, known to the unknown; exploring the discipline by going beyond facts and concepts into generalizations, principles, theories, laws; investigating the layers of experience within a discipline through details, patterns, trends, unanswered questions, and/or ethical considerations (Source: Texas State Plan for the Education of Gifted/Talented Students, page 22)

<p><u>Language of the Discipline</u> Examples: Select and use discipline specific:</p> <ul style="list-style-type: none"> • Vocabulary • Tools • Methodologies • Techniques • Processes • Resources • Products • Communications • Presentation formats 	<p><u>Details</u> Examples:</p> <ul style="list-style-type: none"> • Select full range of relevant and reliable sources of information, including primary and secondary • Skim, scan, and paraphrase • Select note-taking method appropriate to purpose of research • Collect, record, organize, and display data • Logically support conclusions and findings with evidence • Evaluate details based on relevance, validity, reliability, completeness, and reasonableness • Support ideas with quotations 	<p><u>Rules</u> Examples:</p> <ul style="list-style-type: none"> • Develop and implement a research plan • Select methodologies and research design appropriate to topic, problem, or issue • Follow rules and protocols for collecting, analyzing, interpreting, using, and communicating data • Select appropriate specific tools, techniques, methods, and processes to analyze and interpret quantitative and qualitative data • Implement problem-solving process and decision-making skills appropriate to study • Create discipline appropriate products for sharing findings • Cite and document data/information sources 	<p><u>Unanswered Questions</u> Examples:</p> <ul style="list-style-type: none"> • Use problem-solving process and decision-making skills to identify problems, questions, hypotheses, and possible solutions • Develop significant, open-ended research question(s) and guiding questions • Refine, clarify, and generate additional questions throughout research process • Identify and/or reconcile conflicts and/or ambiguities in data • Acknowledge and/or generate questions unanswered by experts or where experts lack consensus
<p><u>Trends</u> Examples:</p> <ul style="list-style-type: none"> • Select variety of tools and techniques to identify, establish, analyze, interpret, predict, and communicate trends • Establish or refute trends by analyzing full range of information and data sources including statistics • Develop visuals including charts, graphs, tables, and models to identify and communicate trends 	<p><u>Patterns</u> Examples:</p> <ul style="list-style-type: none"> • Select variety of tools and techniques to identify, establish, analyze, interpret, and communicate patterns in collected data • Identify, establish, and/or refute patterns from statistics, charts, graphs, models, tables, and other representations of data • Draw conclusions and make predictions from data • Apply patterns of effective oral, written, visual, and/or multi-media communications to create innovative presentations 	<p><u>Ethics</u> Examples:</p> <ul style="list-style-type: none"> • Evaluate sources for validity and reliability • Distinguish between fact and opinion • Identify bias in sources, viewpoints, and/or data • Incorporate multiple perspectives • Collect data precisely • Follow protocol for collecting and using data • Cite and document sources of data/information • Understand consequences of plagiarism • Identify and evaluate misuses and skewing of data 	<p><u>Big Ideas</u> Examples:</p> <ul style="list-style-type: none"> • Develop complex research question(s) and guiding questions to explore the big ideas of problem, topic, or issue selected for study • Categorize notes into conceptual strands • Create generalizations based on findings and conclusions • Communicate new understandings of big ideas in product and/or presentation

The Kindergarten through High School Continuum of Learning Experiences Framework (COLEF) charts can be used to guide students through the research process. The skillful manipulation of the knowledge and skills from ELAR, Math, Science, and Social Studies TEKS will ensure depth and complexity of learning.



Complexity – extension of content in, between, and across disciplines through the study of themes, problems, and issues; seeing relationships between and among ideas in/within the topic, discipline, and disciplines; examining relationships in, between, and across disciplines over time and from multiple points of view (Source: Texas State Plan for the Education of Gifted/Talented Students, page 22)

<p><u>Different Perspectives</u></p> <p>Examples:</p> <ul style="list-style-type: none"> • Select sources that represent multiple points of view • Examine bias in sources and data • Establish validity and authority of viewpoints represented in sources of information and the collection and interpretation of data • Represent multiple viewpoints in problem-solving and decision-making processes • Determine range of solutions or answers to research questions supported by data 	<p><u>Over Time</u></p> <p>Examples:</p> <ul style="list-style-type: none"> • Represent change or constancy overtime through: <ul style="list-style-type: none"> - Graphs, charts, models, tables and other visuals - Statistical analysis • Repeat investigations to increase reliability • Understand selected topic, problem, and/or issue by: <ul style="list-style-type: none"> - Establishing historical perspective - Evaluating elements influencing the frame of reference - Collecting, analyzing, and interpreting data from different points in time • Select variety of tools, techniques, and processes necessary for each stage of project development • Develop, refine, and clarify questions throughout research process 	<p><u>Interdisciplinary Connections</u></p> <p>Examples:</p> <ul style="list-style-type: none"> • Connect knowledge and skills across disciplines to communicate findings in real-world contexts • Integrate a variety of tools, techniques, methods, and processes from multiple disciplines throughout the research project • Select discipline-specific tools, techniques, methods, and processes necessary for research project
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