

GIBSON EK LEARNING GOALS, COMPETENCIES AND TARGETS

3 levels: Learning Goal: *Personal Qualities* Competency: *Creativity & Imagination* Target: *Products & Performances*

Personal Qualities

How do I contribute to my growth and the growth of my community?

Better the World community?		How do I contribute to and improve my
Targets	Possible Indicators	
Leadership Demonstrate strong leadership in all areas of life	Demonstrates ethical decision making, social responsibility and advocacy Takes risks and experiences failure in order to succeed Expands worldview through meaningful and authentic experiences Works with diverse groups of people for sustained periods Empathizes with those holding different beliefs Shows appreciation for contributions of past generations Engages in meaningful and sustained community service Pursues community service that emerges from interests	
Empathy Demonstrate empathy for the needs of a diverse world		
Sense of Responsibility for the Future Demonstrate a sense of responsibility for the future		
Community Engagement Engage in school and local community in a meaningful and authentic way		
Creativity and Imagination imagination?		How do I develop and use my creativity and
Targets	Possible Indicators	
Inventive Thinking Use original, creative thinking to solve problems in various contexts	Uses flexible thinking, adapting own perspective to solve problems Asks thoughtful questions and seeks answers Identifies, gathers, evaluates and considers multiple perspectives to make informed decisions Learns new things Learns from challenges, overcoming fears	
Investigation Investigate the world deeply through interdisciplinary study		
Passions, Interests, Strengths Discover strengths and learn by pursuing passions, interests, and talents		
Products and Performances Create original, well-crafted, high quality products or performances		
Productive Mindset challenges?		How do I persist to meet responsibilities and
Targets	Possible Indicators	
Goal Setting and Lifelong Learning Set and pursue short and long term goals that align with personal vision	Thinks realistically and has motivation to achieve goals Demonstrates time and task management to achieve goals Sees effort as path to mastery Seeks help in solving problems and making decisions Demonstrates confidence, strength of character, determination and independence Treats others with respect and kindness Strives to become a better person Demonstrates ability to reflect on positives and negatives of an experience and grow from it Accepts feedback and critiques	
Perseverance Embrace and persevere through academic and personal challenges		
Honesty and Integrity Demonstrate consistent honesty and integrity		
Reflective Learning Consistently reflect on experiences and make changes for improvement		
Health and Wellness life?		How do I pursue and maintain a positive, balanced
Targets	Possible Indicators	
Active Life Develop the knowledge and skills necessary to maintain an active life	Develops movement, flexibility, strength and/or nutrition skills or knowledge	
Healthy Choice		

Develop the knowledge and skills related to mental, spiritual, financial, community, emotional and/or physical wellness	Demonstrates ability to make informed choices about personal wellness Demonstrates ability to balance school, extracurricular activities, leisure, friends and family.
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Communication

How do I take in and express ideas?

Collaboration		How do I work with others to identify and address challenges?
Targets	Possible Indicators	
Discussions Initiate and participate in rich collaborative discussions	Participates in discussions with peers and community members Contributes relevant information to conversations	
Communication Strategies Demonstrate a variety of communication strategies	Participates in small and large group discussions Applies appropriate strategies of facilitation, collaboration, public speaking and nonverbal behavior	
Diverse Perspectives Expand understanding based on the diverse ideas of others	Actively listens and asks questions Empathizes with others	
Critical Conversations Participate in conversations to solve problems	Seeks and synthesizes diverse ideas Works with others to solve problems	
Understanding		How do I deeply understand challenging ideas and information?
Targets	Possible Indicators	
Read for Understanding Read a broad range of challenging texts over a wide range of topics	Reads, comprehends, analyzes and synthesizes a variety of sources such as media, novels, short stories, articles, academic papers, websites, plays, films, videos and informational sources.	
Text Analysis Understand and analyze a wide range of texts	Increases reading and information gathering challenges over time.	
Multiple Source Synthesis Synthesize multiple sources to form an understanding		
Expression		How do I express ideas in a variety of forms for a variety of purposes?
Targets	Possible Indicators	
Creative Expression Produce a range of effective creative expressions for a variety of purposes	Produces a range of increasingly skilled and complex expression Expresses ideas creatively either verbally or in writing, film, art or music	
Written Expression Produce a range of effective written expressions for a variety of purposes	Expresses ideas in informal and formal contexts (academic, professional, journalism, social media, etc.)	
Verbal Expression Produce a range of effective verbal expressions for a variety of purposes	Reflects on effectiveness of writing/speech/art, seeks feedback and revises	
Language Use Skillfully use language to clearly communicate meaning	Applies appropriate grammar, word choice, tone and fluency for the context and purpose	
Adaptive Communication Adapt language and expression for a variety of purposes and audiences		
Evaluation & Research		How do I find and apply valid, reliable information?
Targets	Possible Indicators	
Source Evaluation & Bias Evaluate the credibility of sources and demonstrate an awareness of bias	Uses appropriate MLA, APA or other relevant conventions for in-text citations, works cited pages and bibliographies	
Citation Cite sources with accepted methods		

Others' Research Compile others' research while avoiding plagiarizing	Uses a range of credible and relevant sources, accessing academic, technical and discipline-specific sources as needed, as well as knowledgeable people Synthesizes the work of others while avoiding plagiarism
Expert Review Ask for feedback from experts and revise work based on that feedback	

Empirical Reasoning

How do I prove it? How do I reason?

Empirical Investigation		How do I design and conduct an investigation?
Targets		Possible Indicators
Scientific Questioning Pose a scientific question that can be tested		Distinguishes between scientific and non-scientific questions Determines what data to collect
Empirical Investigations Design an empirical investigation to collect data		Determines what tools are appropriate for data collection Determines how to record data
Independent and Dependent Variables Define and analyze ind. and dep. variables and experimental controls		Determines how much data is needed to produce reliable measurements, show a pattern or trend, or show a relationship between variables
Evidence Collection Collect empirical evidence to construct and refine explanations		Uses valid data to explain phenomena, systems, etc.
Scientific Knowledge and Theories		How deeply do I understand scientific ideas?
Targets		Possible Indicators
Scientific Concepts Explain complex scientific concepts, theories or controversies		Demonstrates an understanding of scientific ideas Makes changes to ideas based on evidence
Predictions Revise predictions or explanations based on new evidence and information		Uses acceptable scientific resources (primary and secondary) and evidence to support investigations
Scientific Evidence & Models Use scientific evidence and models to support or refute explanations		Asks questions about constraints and specifications when claiming a possible solution or explanation
Constraints & Specifications Question the constraints and specifications of possible solutions		
Empirical Modeling		How do I create representations of complex ideas and systems?
Targets		Possible Indicators
Modeling Create accurate, visual two- and three-dimensional representations of organisms, concepts or systems		Uses models to communicate understanding and ideas of observable and unobservable phenomena Uses models to test understanding and experimental ideas
Tools & Technology Use tools and technology to understand, investigate, create or synthesize ideas, concepts or systems		Uses modeling to identify flaws or areas of improvement Uses modeling to propose new understandings or communicate complex ideas
Limits and Precisions of Models Recognize and expand on the limits of a model		Uses technology to test and explore phenomena or ideas that may not otherwise be accessible
Empirical Arguments		How do I create a well-reasoned argument?
Targets		Possible Indicators
Data to Support a Claim Construct an empirical argument using data to support a claim		Applies conventions of scientific research and writing to make and support claims
Patterns of Evidence Distinguish patterns of evidence that do and do not support conclusions		Draws conclusions based on empirical data Identifies outliers in collections of evidence Sorts relevant and irrelevant evidence
Correlation & Causation Identify a correlation between variables and determine if there is cause and effect		Identifies correlations Shows cause and effect Reflects on results and determines next steps
Weaknesses in an Argument Identify possible weaknesses or flaws in conclusions		

Quantitative Reasoning

How do I measure, compare or represent it?

Interpretation		How do I make sense of displays of numeric information?
Targets		Possible Indicators
Text Understand and summarize quantitative data given in text form		Accurately explains a range of quantitative information--charts, graphs, diagrams, text, equations, expressions, etc. Demonstrates understandings in real world contexts
Graphs & Tables Understand and explain information presented in a graph or table		
Diagrams and Geometric Figures Understand and explain information presented in a diagram or visual form		
Equations & Expressions Understand and explain information presented as mathematical expressions		
Representation		How do I display numeric information to communicate what I understand?
Targets		Possible Indicators
Equivalent Expressions Write expressions or equations to solve real world problems		Selects most appropriate forms (spreadsheets, databases, graphs, tables) and methods (equations, expressions, mean, mode, etc.) of representation for real world contexts Communicates numerical solutions to real world problems
Summary Values Choose appropriate summary values (e.g., mean, standard of deviation) to represent quantitative information		
Graphic Representation Use spreadsheets, databases, tables, graphs and statistics to summarize, display and communicate data		
Calculation		How do I use numbers to find and share answers?
Targets		Possible Indicators
Estimation Estimate and check answers to numerical problems		Uses estimates to determine reasonableness, identify alternatives, select optimal results Presents calculations accurately, clearly and concisely, following the conventions of the real world context Writes accurate code
Methods for Solutions Use arithmetic, algebra and geometry to solve problems		
Operational Order Apply correct mathematical operations in the correct order		
Simplification Present calculations in the simplest form relevant to the problem		
Application & Analysis		How do I use numbers to understand and solve real world problems?
Targets		Possible Indicators
Quantitative Analysis Analyze data and use it to make a judgment or support a conclusion		Uses specific data (surveys, datasets, equations, etc.) to form larger hypothesis or claims about real world contexts Uses theorems, principles or knowledge to understand specific cases or problems Uses specific cases or problems to test quantitative hypotheses Uses quantitative information to understand problems Uses quantitative information to address challenges
Inductive Reasoning Use inductive reasoning to predict outcomes to a real world problem		
Deductive Reasoning Use deductive reasoning to support conclusions for a real world argument		
Quantitative Problem Solving		

Use quantitative data to solve real world problems	
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Social Reasoning

What are others' perspectives? How do actions influence outcomes?

Critical Issues & Events		How do I understand past, present and future events?
Targets	Possible Indicators	
Historical Events Understand past events through sustained research of those events	Reads, interprets and analyzes historical and contemporary sources, including historical documents and primary sources	
Current Events Explain the causes and consequences of current events	Applies research methods associated with historical inquiry Develops well formed hypotheses based on valid and reliable sources	
Past, Present, Future Use an understanding of past and current events to provide a solution for a current or future problem	Considers connection between human decisions and consequences	
Geography & Environment		How do I understand influences of culture, economics, politics and environment?
Targets	Possible Indicators	
Geographic Information Apply geographic information to interpret events	Applies geographic information to more deeply understand real world challenges	
People & Their Environment Explain the relationship between people and their environment	Examines relationship between geography and economic, political or social patterns in real world contexts	
Political Impact Explain the causes and effects of resource distribution (who gets what) on people and the environment	Considers impact of equity, access and opportunity on a range of groups of people in a range of contexts Geography: physical, cultural, economic, political, regional systems	
Equity & Access Demonstrate how equity and access shape people and their environment		
Institutions, Systems & Government		How do I access and contribute to my community?
Targets	Possible Indicators	
Citizens and Government Show an understanding of the rights and responsibilities of individuals	Understands rights and responsibilities in various contexts Uses an understanding of policies, laws or practices to engage in local, state or national government	
Government Engagement Apply an understanding of rights and responsibilities to pursue change	Demonstrates understanding of large and small scale finance	
Large and Small Scale Finance Address real world financial challenges in large, small or personal systems	Creates or modifies systems to improve access or usability Demonstrates understanding of effect of local and national policies on other nations and vice versa	
Systems Explain the effects of a variety of systems on one another	Uses understandings to address real-world challenges	
Human Behavior & Expression		How do I understand the causes and effects of human behavior?
Targets	Possible Indicators	
Belief Systems Demonstrates how social influences and beliefs shape behavior	Examines group dynamics and evaluates the role of power and/or privilege in interpersonal and group relationships	
Human Behavior Demonstrates how biology and thought processes shape behavior	Uses an understanding of human behavior to address real world problems	
Ethics Analyzes ethical issues and dilemmas to support a course of action	Demonstrates an understanding of economics, psychology and/or sociology studies and their applications	
Power & Relationships Evaluates the role of power and privilege in a real world context		

Integrating competencies into projects

Most authentic projects are interdisciplinary, so projects will include elements of various competencies and targets. Here are just a few examples of how to integrate competencies.

Personal Qualities

- Write a reflection of a global issue, apply learning to own life and share.
- Research a personally relevant health issue, and connect this research project to a Health and Wellness plan.
- Research a community challenge or need early in the year. Spend the remainder of the year volunteering with a community organization that addresses that challenge or need.
- Provide a testimonial from a mentor, peer or other community member attesting to skill, responsibility, respect or integrity.

Communication

- Adapt a final product for a new user — older, younger, physically disabled, learning impaired, limited language, limited finances, etc. Make it authentic by working with and soliciting feedback from an actual user.
- Use art (visual, musical, performance) to communicate an important social issue, challenge or problem
- Study a scientific concept of interest, and communicate your understanding through fiction: a play, poem, science fiction, etc.
- Organize an exhibit of GEHS student art that is thematically connected by a social issue. Work with the City of Issaquah to create a pop-up art exhibit in one of the local parks.

Empirical Reasoning

- Study sound waves and apply the learning to the recording studio, experimenting with and documenting the effects of variables on the quality of the recording.
- Film skateboarding maneuvers and use software to analyze the velocity of these maneuvers, experimenting with variables.
- Record the speed of a cyclist on a velodrome (maybe the one at Marymoor Park). Use math to determine the cyclist's speed on various lines of the velodrome. Use this data to design a model of a velodrome.
- Research nudge economics and then design and conduct a nudge experiment to change student productivity.

Quantitative Reasoning

- Create a scale drawing of furniture, staircase, etc. to build at a later date, and label these plans with appropriate information.
- Observe patterns (customers in a store, etc.) to make predictions for a business.
- Gather analytics from a social media account and use it to create a social media marketing plan for a small business.
- After researching a social issue, analyze data sets related to that issue and communicate your findings in an infographic.

Social Reasoning

- Research gender norms and attitudes in the 1950s and compare it to norms and attitudes now. Create a photo essay to capture your research, and display it in the Commons.
- Use King County's Equity Maps and, using additional research, analyze the relationship among economics, resources, physical geography. Apply what you learn to mapping downtown Issaquah.
- Research how Gibson Ek can filter more of its stormwater runoff and the impact this would have on the microenvironment around GEHS as well as the larger watershed. Design a system to make this happen, create a budget, and write a grant to help implement your design.

- Research the current and potential impact of electric cars on the environment. Work with local government and the school district to get an electric car charging station at Gibson Ek.