



**LINCOLN
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SOLUTIONS

Introduction to Engineering

Course Pacing Guide

NOTE: If both an "Assess It" and "Show It" are present in the sequence, only the "Assess It" will be visible in the Student View of the course.

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Lesson Name	Activity	Topic	Standard	Standard Description
Course Resources	Topic	Course Resources		
Introduction to Engineering Pacing Guide	Introduction	Course Resources		
Introduction to Engineering Supply List	Introduction	Course Resources		
Introduction to Engineering	Topic	Introduction to Engineering		
Lesson 1	Lesson	Introduction to Engineering		
Defining Engineering	Read It	Introduction to Engineering	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Defining Engineering	Show It	Introduction to Engineering	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Defining Engineering	Show It AK	Introduction to Engineering	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Defining Engineering	Assess It	Introduction to Engineering	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Lesson 2	Lesson	Introduction to Engineering		
Engineering Through History	Read It	Introduction to Engineering	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Engineering Through History	Practice It	Introduction to Engineering	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Engineering Through History	Show It	Introduction to Engineering	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Engineering Through History	Show It AK	Introduction to Engineering	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.



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Lesson Name	Activity	Topic	Standard	Standard Description
Lesson 3	Lesson	Introduction to Engineering		
Careers in Engineering	Read It	Introduction to Engineering	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Engineering	Watch It	Introduction to Engineering	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Careers in Engineering	Show It	Introduction to Engineering	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Careers in Engineering	Show It AK	Introduction to Engineering	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Careers in Engineering	Assess It	Introduction to Engineering	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Lesson 4	Lesson	Introduction to Engineering		
Studying Engineering: Case Studies	Read It	Introduction to Engineering	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Studying Engineering: Case Studies	Practice It	Introduction to Engineering	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Studying Engineering: Case Studies	Show It	Introduction to Engineering	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Studying Engineering: Case Studies	Show It AK	Introduction to Engineering	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.



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Lesson Name	Activity	Topic	Standard	Standard Description
Studying Engineering: Case Studies	Assess It	Introduction to Engineering	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Engineering and Society	Topic	Engineering and Society		
Lesson 5	Lesson	Engineering and Society		
Engineering Issues	Read It	Engineering and Society	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Engineering Issues	Show It	Engineering and Society	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Engineering Issues	Show It AK	Engineering and Society	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Lesson 6	Lesson	Engineering and Society		
Engineering in Technology and Society	Read It	Engineering and Society	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Engineering in Technology and Society	Show It	Engineering and Society	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Engineering in Technology and Society	Show It AK	Engineering and Society	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Engineering in Technology and Society	Assess It	Engineering and Society	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Lesson 7	Lesson	Engineering and Society		
Historical Impacts	Read It	Engineering and Society	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.



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Lesson Name	Activity	Topic	Standard	Standard Description
Historical Impacts	Show It	Engineering and Society	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Historical Impacts	Show It AK	Engineering and Society	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Math and Science in Engineering	Topic	Math and Science in Engineering		
Lesson 8	Lesson	Math and Science in Engineering		
Using Scale in Design	Read It	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Using Scale in Design	Practice It	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Using Scale in Design	Show It	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Using Scale in Design	Show It AK	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Lesson 9	Lesson	Math and Science in Engineering		
Basic Engineering Language	Read It	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Basic Engineering Language	Practice It	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.



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Lesson Name	Activity	Topic	Standard	Standard Description
Basic Engineering Language	Show It	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Basic Engineering Language	Show It AK	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Basic Engineering Language	Assess It	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Lesson 10	Lesson	Math and Science in Engineering		
Science and Math in Engineering	Read It	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Science and Math in Engineering	Practice It	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Science and Math in Engineering	Show It	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Science and Math in Engineering	Show It AK	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Lesson 11	Lesson	Math and Science in Engineering		
Models and Simulations in Engineering	Watch It	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.



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Lesson Name	Activity	Topic	Standard	Standard Description
Models and Simulations in Engineering	Apply It	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Models and Simulations in Engineering	Apply It AK	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Models and Simulations in Engineering	Assess It	Math and Science in Engineering	HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.
Lesson 12	Lesson	Math and Science in Engineering		
Mastery Assess It 1	Assess It	Math and Science in Engineering		
Engineering Design Process	Topic	Engineering Design Process		
Lesson 13	Lesson	Engineering Design Process		
Why Do Engineers Design?	Read It	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Why Do Engineers Design?	Show It	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Why Do Engineers Design?	Show It AK	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 14	Lesson	Engineering Design Process		
Introduction to Design	Read It	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Introduction to Design	Watch It	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.



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Lesson Name	Activity	Topic	Standard	Standard Description
Introduction to Design	Practice It	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Introduction to Design	Show It	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Introduction to Design	Show It AK	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Introduction to Design	Assess It	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 15	Lesson	Engineering Design Process		
Problem-Solving and Creativity	Read It	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Problem-Solving and Creativity	Show It	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Problem-Solving and Creativity	Show It AK	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 16	Lesson	Engineering Design Process		
Trends in Engineering Design	Read It	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Trends in Engineering Design	Show It	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Trends in Engineering Design	Show It AK	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 17	Lesson	Engineering Design Process		



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Lesson Name	Activity	Topic	Standard	Standard Description
Practices and Processes for Design	Read It	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Practices and Processes for Design	Show It	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Practices and Processes for Design	Show It AK	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Practices and Processes for Design	Assess It	Engineering Design Process	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Engineering Systems	Topic	Engineering Systems		
Lesson 18	Lesson	Engineering Systems		
Selecting Materials	Read It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Selecting Materials	Practice It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Selecting Materials	Show It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Selecting Materials	Show It AK	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 19	Lesson	Engineering Systems		



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Lesson Name	Activity	Topic	Standard	Standard Description
Mechanics and Mechanisms	Read It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Mechanics	Watch It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Simple Machines	Watch It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Mechanics and Mechanisms	Show It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Mechanics and Mechanisms	Show It AK	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Mechanics and Mechanisms	Assess It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 20	Lesson	Engineering Systems		
Structural Systems	Read It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Replacing the Twin Towers	Watch It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.



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Lesson Name	Activity	Topic	Standard	Standard Description
Structural Systems	Show It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Structural Systems	Show It AK	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Structural Systems	Assess It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 21	Lesson	Engineering Systems		
Electrical Systems	Read It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Circuit Diagram	Watch It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Transformers	Watch It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Electrical Systems	Show It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Electrical Systems	Show It AK	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 22	Lesson	Engineering Systems		



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Lesson Name	Activity	Topic	Standard	Standard Description
Electronic Systems	Read It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Engineering Jukeboxes	Watch It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Electronic Systems	Show It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Electronic Systems	Show It AK	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 23	Lesson	Engineering Systems		
Fluid Systems	Read It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Car Jacks: Part 1	Watch It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Car Jacks: Part 2	Watch It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Fluid Systems	Show It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.



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Lesson Name	Activity	Topic	Standard	Standard Description
Fluid Systems	Show It AK	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Fluid Systems	Assess It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 24	Lesson	Engineering Systems		
Thermal Systems	Read It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Engineering Refrigerators	Watch It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Thermal Systems	Show It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Thermal Systems	Show It AK	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Thermal Systems	Assess It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 25	Lesson	Engineering Systems		



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Lesson Name	Activity	Topic	Standard	Standard Description
Optical Systems	Read It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Engineering Movie Lenses	Watch It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Optical Systems	Show It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Optical Systems	Show It AK	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Optical Systems	Assess It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 26	Lesson	Engineering Systems		
Control Systems	Read It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Remote-Control Car	Watch It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Control Systems	Show It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.



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Control Systems	Show It AK	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Control Systems	Assess It	Engineering Systems	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 27	Lesson	Engineering Systems		
Emerging Technologies	Read It	Engineering Systems	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Emerging Technologies	Watch It	Engineering Systems	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Emerging Technologies	Show It	Engineering Systems	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Emerging Technologies	Show It AK	Engineering Systems	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Lesson 28	Lesson	Engineering Systems		
Mastery Assess It_2	Assess It	Engineering Systems		
Ergonomics, Ethics, and Liability	Topic	Ergonomics, Ethics, and Liability		
Lesson 29	Lesson	Ergonomics, Ethics, and Liability		
Safety in Engineering	Read It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.



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Lesson Name	Activity	Topic	Standard	Standard Description
Safety in Engineering	Show It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Safety in Engineering	Show It AK	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 30	Lesson	Ergonomics, Ethics, and Liability		
Human Factors and Design	Read It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Human Factors and Design	Show It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Human Factors and Design	Show It AK	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 31	Lesson	Ergonomics, Ethics, and Liability		
Safe and Ergonomic Design	Read It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Safe and Ergonomic Design	Practice It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Safe and Ergonomic Design	Show It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.



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Lesson Name	Activity	Topic	Standard	Standard Description
Safe and Ergonomic Design	Show It AK	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Safe and Ergonomic Design	Assess It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 32	Lesson	Ergonomics, Ethics, and Liability		
Ethics and Engineering	Read It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Ethics and Engineering	Show It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Ethics and Engineering	Show It AK	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 33	Lesson	Ergonomics, Ethics, and Liability		
Product Liability	Read It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Product Liability	Show It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Product Liability	Show It AK	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.



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Lesson Name	Activity	Topic	Standard	Standard Description
Lesson 34	Lesson	Ergonomics, Ethics, and Liability		
Engineering Failures	Read It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Skyscrapers and Mother Nature	Watch It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Engineering Failures	Show It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Engineering Failures	Show It AK	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Engineering Failures	Assess It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 35	Lesson	Ergonomics, Ethics, and Liability		
Design Hazards and Analysis	Read It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Design Hazards and Analysis	Practice It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Design Hazards and Analysis	Show It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.



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Lesson Name	Activity	Topic	Standard	Standard Description
Design Hazards and Analysis	Show It AK	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Design Hazards and Analysis	Assess It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 36	Lesson	Ergonomics, Ethics, and Liability		
Engineering Impact Prevention	Read It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Engineering Impact Prevention	Show It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Engineering Impact Prevention	Show It AK	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 37	Lesson	Ergonomics, Ethics, and Liability		
Redesign for Ergonomics	Apply It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Redesign for Ergonomics	Apply It AK	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.



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Lesson Name	Activity	Topic	Standard	Standard Description
Redesign for Ergonomics	Assess It	Ergonomics, Ethics, and Liability	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Engineering Trade-Offs	Topic	Engineering Trade-Offs		
Lesson 38	Lesson	Engineering Trade-Offs		
Design and Trade-Offs	Read It	Engineering Trade-Offs	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Design and Trade-Offs	Practice It	Engineering Trade-Offs	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Design and Trade-Offs	Show It	Engineering Trade-Offs	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Design and Trade-Offs	Show It AK	Engineering Trade-Offs	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 39	Lesson	Engineering Trade-Offs		
Trade-Off Risks	Read It	Engineering Trade-Offs	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Trade-Off Risks	Show It	Engineering Trade-Offs	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.



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Lesson Name	Activity	Topic	Standard	Standard Description
Trade-Off Risks	Show It AK	Engineering Trade-Offs	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 40	Lesson	Engineering Trade-Offs		
Economics and Trade-Offs	Read It	Engineering Trade-Offs	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Economics and Trade-Offs	Show It	Engineering Trade-Offs	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Economics and Trade-Offs	Show It AK	Engineering Trade-Offs	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Economics and Trade-Offs	Assess It	Engineering Trade-Offs	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Sustainable Design	Topic	Sustainable Design		
Lesson 41	Lesson	Sustainable Design		
History of Sustainable Design	Read It	Sustainable Design	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
History of Sustainable Design	Show It	Sustainable Design	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.



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Lesson Name	Activity	Topic	Standard	Standard Description
History of Sustainable Design	Show It AK	Sustainable Design	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 42	Lesson	Sustainable Design		
Examples of Sustainable Design	Read It	Sustainable Design	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Sustainable Vehicle	Watch It	Sustainable Design	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Examples of Sustainable Design	Show It	Sustainable Design	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Examples of Sustainable Design	Show It AK	Sustainable Design	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Lesson 43	Lesson	Sustainable Design		
Defining a Problem	Apply It	Sustainable Design	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Defining a Problem	Apply It AK	Sustainable Design	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
Defining a Problem	Assess It	Sustainable Design	HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.



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Lesson Name	Activity	Topic	Standard	Standard Description
Lesson 44	Lesson	Sustainable Design		
Mastery Assess It_3	Assess It	Sustainable Design		
Reverse Engineering	Topic	Reverse Engineering		
Lesson 45	Lesson	Reverse Engineering		
Re-Engineering Process	Read It	Reverse Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Re-Engineering Process	Show It	Reverse Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Re-Engineering Process	Show It AK	Reverse Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Re-Engineering Process	Assess It	Reverse Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 46	Lesson	Reverse Engineering		
Re-Engineering Examples	Read It	Reverse Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Reverse Engineering	Watch It	Reverse Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Re-Engineering Examples	Show It	Reverse Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Re-Engineering Examples	Show It AK	Reverse Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Re-Engineering Examples	Assess It	Reverse Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.



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Lesson Name	Activity	Topic	Standard	Standard Description
Concurrent Engineering	Topic	Concurrent Engineering		
Lesson 47	Lesson	Concurrent Engineering		
What is Concurrent Engineering?	Read It	Concurrent Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
What is Concurrent Engineering?	Show It	Concurrent Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
What is Concurrent Engineering?	Show It AK	Concurrent Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 48	Lesson	Concurrent Engineering		
Project Management	Read It	Concurrent Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Project Management	Practice It	Concurrent Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Project Management	Show It	Concurrent Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Project Management	Show It AK	Concurrent Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 49	Lesson	Concurrent Engineering		
Manufacturing	Read It	Concurrent Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Manufacturing	Show It	Concurrent Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.



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Lesson Name	Activity	Topic	Standard	Standard Description
Manufacturing	Show It AK	Concurrent Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Manufacturing	Assess It	Concurrent Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 50	Lesson	Concurrent Engineering		
Article Analysis	Apply It	Concurrent Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Article Analysis	Apply It AK	Concurrent Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Article Analysis	Assess It	Concurrent Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Protecting Ideas	Topic	Protecting Ideas		
Lesson 51	Lesson	Protecting Ideas		
Why Protect Ideas?	Read It	Protecting Ideas	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Intellectual Property	Watch It	Protecting Ideas	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Why Protect Ideas?	Show It	Protecting Ideas	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Why Protect Ideas?	Show It AK	Protecting Ideas	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Why Protect Ideas?	Assess It	Protecting Ideas	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.



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Lesson Name	Activity	Topic	Standard	Standard Description
Lesson 52	Lesson	Protecting Ideas		
Patents	Read It	Protecting Ideas	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Copy Cat Companies	Watch It	Protecting Ideas	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Patents	Show It	Protecting Ideas	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Patents	Show It AK	Protecting Ideas	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Patents	Assess It	Protecting Ideas	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 53	Lesson	Protecting Ideas		
Patent Trends	Read It	Protecting Ideas	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Patent Trends	Show It	Protecting Ideas	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Patent Trends	Show It AK	Protecting Ideas	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Technological Forecasting	Topic	Technological Forecasting		
Lesson 54	Lesson	Technological Forecasting		
Introduction to Forecasting	Read It	Technological Forecasting	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.



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Lesson Name	Activity	Topic	Standard	Standard Description
Introduction to Forecasting	Show It	Technological Forecasting	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Introduction to Forecasting	Show It AK	Technological Forecasting	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 55	Lesson	Technological Forecasting		
Forecasts: Analysis and Application	Read It	Technological Forecasting	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Forecasts: Analysis and Application	Show It	Technological Forecasting	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Forecasts: Analysis and Application	Show It AK	Technological Forecasting	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Forecasts: Analysis and Application	Assess It	Technological Forecasting	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 56	Lesson	Technological Forecasting		
Mastery Assess It 4	Assess It	Technological Forecasting		
Skills for Design	Topic	Skills for Design		
Lesson 57	Lesson	Skills for Design		
The Design Process	Read It	Skills for Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
The Design Process	Show It	Skills for Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
The Design Process	Show It AK	Skills for Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.



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Lesson Name	Activity	Topic	Standard	Standard Description
Lesson 58	Lesson	Skills for Design		
Defining Design Problems	Read It	Skills for Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Defining Design Problems	Practice It	Skills for Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Defining Design Problems	Show It	Skills for Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Defining Design Problems	Show It AK	Skills for Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Defining Design Problems	Assess It	Skills for Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 59	Lesson	Skills for Design		
Design Specifications	Read It	Skills for Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Design Specifications	Show It	Skills for Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Design Specifications	Show It AK	Skills for Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Design Specifications	Assess It	Skills for Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Research in Engineering	Topic	Research in Engineering		
Lesson 60	Lesson	Research in Engineering		



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Lesson Name	Activity	Topic	Standard	Standard Description
Research and Investigation	Read It	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Research and Investigation	Show It	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Research and Investigation	Show It AK	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 61	Lesson	Research in Engineering		
Researching Secondary Sources	Read It	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Researching Secondary Sources	Show It	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Researching Secondary Sources	Show It AK	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Researching Secondary Sources	Assess It	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 62	Lesson	Research in Engineering		
Researching Primary Sources	Read It	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Sources: Primary and Secondary	Watch It	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Researching Primary Sources	Show It	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.



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Lesson Name	Activity	Topic	Standard	Standard Description
Researching Primary Sources	Show It AK	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Researching Primary Sources	Assess It	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 63	Lesson	Research in Engineering		
Cholesterol and Heart Disease	Watch It	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Heart Disease	Watch It	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Design Process: Research	Apply It	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Design Process: Research	Apply It AK	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Design Process: Research	Assess It	Research in Engineering	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Creative and Critical Thinking	Topic	Creative and Critical Thinking		
Lesson 64	Lesson	Creative and Critical Thinking		
Thinking Creatively	Read It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Thinking Creatively	Practice It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Thinking Creatively	Show It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.



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Lesson Name	Activity	Topic	Standard	Standard Description
Thinking Creatively	Show It AK	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 65	Lesson	Creative and Critical Thinking		
Generating Ideas	Read It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Generating Ideas	Show It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Generating Ideas	Show It AK	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Generating Ideas	Assess It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 66	Lesson	Creative and Critical Thinking		
Synthesizing Your Ideas	Read It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Synthesizing Your Ideas	Practice It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Synthesizing Your Ideas	Show It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Synthesizing Your Ideas	Show It AK	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Synthesizing your ideas	Assess It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 67	Lesson	Creative and Critical Thinking		



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Lesson Name	Activity	Topic	Standard	Standard Description
Communicating	Read It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Communicating	Practice It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Communicating	Show It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Communicating	Show It AK	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 68	Lesson	Creative and Critical Thinking		
Documenting Your Design	Read It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Documenting Your Design	Practice It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Documenting Your Design	Show It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Documenting Your Design	Show It AK	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 69	Lesson	Creative and Critical Thinking		
Presenting Your Design	Read It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Presenting Your Design	Practice It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.



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Lesson Name	Activity	Topic	Standard	Standard Description
Presenting Your Design	Show It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Presenting Your Design	Show It AK	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Presenting your Design	Assess It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 70	Lesson	Creative and Critical Thinking		
Design Process: Choose a Solution	Apply It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Design Process: Choose a Solution	Apply It AK	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Design Process: Choose a Solution	Assess It	Creative and Critical Thinking	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 71	Lesson	Creative and Critical Thinking		
Mastery Assess It_5	Assess It	Creative and Critical Thinking		
Modeling and Prototyping	Topic	Modeling and Prototyping		
Lesson 72	Lesson	Modeling and Prototyping		
Modeling a Design	Read It	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Modeling a Design	Show It	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Modeling a Design	Show It AK	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.



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Lesson Name	Activity	Topic	Standard	Standard Description
Lesson 73	Lesson	Modeling and Prototyping		
Types of Models	Read It	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Types of Models	Practice It	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Types of Models	Show It	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Types of Models	Show It AK	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Types of Models	Assess It	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 74	Lesson	Modeling and Prototyping		
Prototyping	Read It	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
New Prototype	Watch It	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Prototyping	Show It	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Prototyping	Show It AK	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 75	Lesson	Modeling and Prototyping		
Design Process: Prototyping	Apply It	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.



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Lesson Name	Activity	Topic	Standard	Standard Description
Design Process: Prototyping	Apply It AK	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Design Process: Prototyping	Assess It	Modeling and Prototyping	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Testing Processes	Topic	Testing Processes		
Lesson 76	Lesson	Testing Processes		
Testing a Design	Read It	Testing Processes	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Testing a Design	Practice It	Testing Processes	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Testing a Design	Show It	Testing Processes	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Testing a Design	Show It AK	Testing Processes	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Lesson 77	Lesson	Testing Processes		
Testing Materials and Structures	Read It	Testing Processes	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Testing Materials and Structures	Show It	Testing Processes	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Testing Materials and Structures	Show It AK	Testing Processes	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Lesson 78	Lesson	Testing Processes		



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Lesson Name	Activity	Topic	Standard	Standard Description
Testing Parameters	Read It	Testing Processes	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Prototype Success	Watch It	Testing Processes	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Testing Parameters	Show It	Testing Processes	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Testing Parameters	Show It AK	Testing Processes	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Testing Parameters	Assess It	Testing Processes	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Analyzing Your Design	Topic	Analyzing Your Design		
Lesson 79	Lesson	Analyzing Your Design		
What is Analysis?	Read It	Analyzing Your Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
What is Analysis?	Show It	Analyzing Your Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
What is Analysis?	Show It AK	Analyzing Your Design	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 80	Lesson	Analyzing Your Design		
Analysis Techniques	Read It	Analyzing Your Design	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Analysis Techniques	Practice It	Analyzing Your Design	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.



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Lesson Name	Activity	Topic	Standard	Standard Description
Analysis Techniques	Show It	Analyzing Your Design	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Analysis Techniques	Show It AK	Analyzing Your Design	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Lesson 81	Lesson	Analyzing Your Design		
Economic Analysis	Read It	Analyzing Your Design	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Economic Analysis	Show It	Analyzing Your Design	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Economic Analysis	Show It AK	Analyzing Your Design	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Economic Analysis	Assess It	Analyzing Your Design	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Refining and Implementation	Topic	Refining and Implementation		
Lesson 82	Lesson	Refining and Implementation		
Refining Your Design	Read It	Refining and Implementation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Refining Your Design	Show It	Refining and Implementation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Refining Your Design	Show It AK	Refining and Implementation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Lesson 83	Lesson	Refining and Implementation		



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Lesson Name	Activity	Topic	Standard	Standard Description
Implementing Your Design	Read It	Refining and Implementation	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Implementing Your Design	Show It	Refining and Implementation	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Implementing Your Design	Show It AK	Refining and Implementation	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 84	Lesson	Refining and Implementation		
Planning in Design	Read It	Refining and Implementation	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Planning in Design	Show It	Refining and Implementation	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Planning in Design	Show It AK	Refining and Implementation	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Lesson 85	Lesson	Refining and Implementation		
Design Process: Testing	Apply It	Refining and Implementation	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Design Process: Testing	Apply It AK	Refining and Implementation	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Design Process: Testing	Assess It	Refining and Implementation	HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
Design Presentation	Topic	Design Presentation		
Lesson 86	Lesson	Design Presentation		



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Lesson Name	Activity	Topic	Standard	Standard Description
Design Documentation	Read It	Design Presentation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Design Documentation	Show It	Design Presentation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Design Documentation	Show It AK	Design Presentation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Lesson 87	Lesson	Design Presentation		
Technical Reports	Read It	Design Presentation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Technical Reports	Practice It	Design Presentation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Technical Reports	Show It	Design Presentation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Technical Reports	Show It AK	Design Presentation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Lesson 88	Lesson	Design Presentation		
Portfolio and Presentation	Read It	Design Presentation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Portfolio and Presentation	Practice It	Design Presentation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Portfolio and Presentation	Show It	Design Presentation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.



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Lesson Name	Activity	Topic	Standard	Standard Description
Portfolio and Presentation	Show It AK	Design Presentation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Lesson 89	Lesson	Design Presentation		
Design Process: Present Results	Apply It	Design Presentation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Design Process: Present Results	Apply It AK	Design Presentation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Design Process: Present Results	Assess It	Design Presentation	HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
Lesson 90	Lesson	Design Presentation		
Mastery Assess It_6	Assess It	Design Presentation		