

# Invention Convention

## Correlated Standards by Grade

NGSS=Next Generation Science Standards, ACOS=Alabama Course of Study, GPS=Georgia Performance Standards, GSE=Georgia Standards of Excellence, MSF=Mississippi Science Framework, TASS=Tennessee Academic Standards for Science



### Grade 2

#### **NGSS**

3-5ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

#### **ACOS**

#### **MSF**

#### **TASS**

2.ETS1,1, Define a simple problem that can be solved through the development of a new or improved object or tool by asking questions, making observations, and gather accurate information about a situation people want to change.

#### **GSE**

#### **GPS**

### Grade 3

#### **NGSS**

3-5ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

#### **ACOS**

#### **MSF**

#### **TASS**

#### **GSE**

#### **GPS**

### Grade 4

#### **NGSS**

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3-5ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

## **ACOS**

## **MSF**

## **TASS**

4.ETS2.2. Determine the effectiveness of multiple solutions to a design problem given the criteria and the constraints.

## **GSE**

## **GPS**

### Grade 5

## **NGSS**

3-5ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

## **ACOS**

## **MFS**

## **TASS**

## **GSE**

## **GPS**

### Middle School

## **NGSS**

MS-ETS1-2. Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

## **ACOS**

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**MFS**

6.I.1.f. Evaluate the results or solutions by considering how well a product or design met the challenge to solve a problem.

6.I.1. Conduct a scientific investigation utilizing appropriate process skills.

**TASS**

6.ETS1.1. Evaluate design constraints on solutions for maintaining ecosystems and biodiversity.

**GSE****GPS**

S8R1. Students will synthesize science content through standard research protocols in earth, life, and physical science.

S8R2. Students will investigate an accessible scientific research problem in earth, life, or physical science.

S6-8CS5. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.

High School

**NGSS**

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.

**ACOS**

ES.HS.10. Design solutions for protection of natural water resources considering properties, uses, and pollutants.

SC.HS.12. Design, build, and test the ability of a device to convert one form of energy into another form of energy.

**MSF****TASS****GSE****GPS**

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