# Pre-AP Geometry with Statistics Instructional Planning Guide with SpringBoard Geometry, Texas Edition

The goal of the instructional planning guide is to help you create a roadmap of the key instructional activities and assessments you will   
use to design your course in alignment with the Pre-AP course framework and instructional principles. This sample offers one approach   
of how your SpringBoard resources can be used across each Pre-AP unit to create a plan for the full year. We encourage you to adapt this   
approach to support your students’ needs.

**Using and Customizing Your Own Instructional Planning Guide:**

* Consider using this tool to plan collaboratively with your peers.
* This document is flexible, allowing you to modify it as needed to best support your students’ needs.   
  Feel free to incorporate other SpringBoard resources (found in the SpringBoard curriculum maps)   
  to reinforce the model lessons and course goals as appropriate. These resources include:
  + - Core lessons and activities
    - Embedded Assessments
    - Skills Workshops
    - SpringBoard digital assessments
    - Desmos activities
* Take time to capture your reflections as you move through the course.

## Unit 1 Measurement in Data

| **Pacing**  **in min** | **Actual Date(s)** | **Key Concepts** | **Materials/Resources/Tasks**  *Pre-AP Model Lessons, Additional Lessons, Textbooks,  Performance Tasks, Assessments* | **Learning Objectives** | **State Standards** | **Reflections on  Areas of Focus & Shared Principles** |
| --- | --- | --- | --- | --- | --- | --- |
| ~60 |  | 1.1: The Shape of Data | Pre-AP Model Lesson 1.1: A-Maze-ing Statistics | 1.1.1, 1.1.2 | N/A |  |
| ~135 |  | 1.1: The Shape of Data | Pre-AP Model Lesson 1.2: Exploring Variables | 1.1.2 | N/A |  |
| ~90 |  | 1.1: The Shape of Data | Pre-AP Model Lesson 1.3: Measures of Center | 1.1.1, 1.1.3, 1.1.4, 1.1.6 | N/A |  |
| ~90 |  | 1.1: The Shape of Data | Pre-AP Model Lesson 1.4: Standard Deviation and Variance | 1.1.1, 1.1.5 | N/A |  |
| ~90 |  | 1.1: The Shape of Data | Pre-AP Model Lesson 1.5: Distributions as Functions | 1.1.2 | N/A |  |
| ~45 |  | 1.1: The Shape of Data | Pre-AP Model Lesson 1.6: The Normal Distribution | 1.1.6 | N/A |  |
| ~45 |  | 1.1 | **Learning Checkpoint 1**  *This learning checkpoint can assess any of the learning objectives from its associated Key Concepts.* |  |  |  |
| ~45 |  | 1.1 | **Practice Performance Task**  Staffing the Grocery Store  *This practice performance task assesses learning objectives and essential knowledge statements addressed up to this point in the unit.* |  | N/A |  |
| ~135 |  | 1.2: Chance Events | Pre-AP Model Lesson 1.7: Introduction to Probability | 1.2.2 | G.13.B |  |
| ~45 |  | 1.2: Chance Events | Pre-AP Model Lesson 1.8: Venn Diagrams | 1.2.1, 1.2.3 | G.13.D |  |
| ~45 |  | 1.2: Chance Events | Pre-AP Model Lesson 1.9: Contingency Tables | 1.2.1, 1.2.3 | G.13.D |  |
| ~45 |  | 1.2: Chance Events | Pre-AP Model Lesson 1.10: Independent Events  SpringBoard Mini-Lesson: Probability with a Deck of Cards | 1.2.4 | G.13.C–E |  |
| ~45 |  | 1.2: Chance Events | Pre-AP Model Lesson 1.11: Modeling Probability with the Normal Distribution | 1.2.5 | G.13.C |  |
| ~45 |  | 1.2 | **Practice Performance Task**  Are Grades and Homework Connected?  *This practice performance task assesses learning objectives and essential knowledge statements addressed up to this point in the unit.* |  | G.13.C–E |  |
| ~45 |  | 1.3: Inferences from Data | Pre-AP Model Lesson 1.12: Accuracy and Precision | 1.3.1 | N/A |  |
| ~45 |  | 1.2, 1.3 | **Learning Checkpoint 2**  *This learning checkpoint can assess any of the learning objectives from its associated Key Concepts.* |  |  |  |
| ~180 |  | 1.3 | **Performance Task**  Designing a Study  *This performance task assesses learning objectives and essential knowledge statements addressed in the unit.* |  | N/A |  |

[add or remove rows as needed]

### Reflections

What went well in this unit?

When were students most engaged during this unit?

How have students grown? What opportunities for growth stand out at this time?

What needs modification or differentiation next time?

## Unit 2 Tools and Techniques of Geometric Measurement

| **Pacing in min** | **Actual Date(s)** | **Key Concepts** | **Materials/Resources/Tasks**  *Pre-AP Model Lessons, Additional Lessons, Textbooks,  Performance Tasks, Assessments* | **Learning Objectives** | **State Standards** | **Reflections on  Areas of Focus & Shared Principles** |
| --- | --- | --- | --- | --- | --- | --- |
| ~135 |  | 2.1: Measurement in Geometry | SpringBoard Activity 1: Geometric Figures | 2.1.1, 2.1.2 | N/A |  |
| ~90 |  | 2.1: Measurement in Geometry | Pre-AP Model Lesson 2.1: Measuring Segments and Angles | 2.1.3–2.1.6 | G.1.C, G.4.A, G.5.C |  |
| ~90 |  | 2.1: Measurement in Geometry | Pre-AP Model Lesson 2.2: Copying Line Segments and Angles | 2.1.7 | G.1.C, G.5.B |  |
| ~45 |  | 2.1: Measurement in Geometry | Pre-AP Model Lesson 2.3: Measuring Distance in the Coordinate Plane  SpringBoard Mini-Lesson: Working with Square Roots | 2.1.8 | G.2.B,  A.11.A, A.11.B |  |
| ~135 |  | 2.1: Measurement in Geometry | Springboard Activity 4: Segment and Angle Measurement | 2.1.9 | G.2.B, G.4.D, G.5.B, G.5.C |  |
| ~45 |  | 2.1 | **Learning Checkpoint 1**  *This learning checkpoint can assess any of the learning objectives from its associated Key Concepts.* |  |  |  |
| ~90 |  | 2.2: Parallel and Perpendicular Lines | Pre-AP Model Lesson 2.4: Parallel and Perpendicular Lines in the Coordinate Plane | 2.2.1–2.2.3, 2.2.5, 2.2.7 | G.2.B, G.5.A, G.6.A |  |
| ~90 |  | 2.2: Parallel and Perpendicular Lines | Pre-AP Model Lesson 2.5: The Perpendicular Bisector Theorem | 2.1.10  2.2.6 | G.2.A, G.2.B, G.5.B, G.5.C |  |
| ~90 |  | 2.2: Parallel and Perpendicular Lines | SpringBoard Activity 13: Properties of Triangles | 2.2.4 | G.4.D, G.5.A, G.6.D |  |
| ~45 |  | 2.2 | **Practice Performance Task**  The Flatiron Footprint  *This practice performance task assesses learning objectives and essential knowledge statements addressed up to this point in the unit.* |  | G.2.B, G.8.B, G.11.A |  |
| ~45 |  | 2.3: Measurement in Right Triangles | Pre-AP Model Lesson 2.6: Using Right Triangles in the Coordinate Plane | 2.3.1, 2.3.2 | G.2.B, G.4.A  G.8.A |  |
| ~90 |  | 2.3: Measurement in Right Triangles | Pre-AP Model Lesson 2.7: Similarity and the Pythagorean Theorem | 2.3.2, 2.3.3 | G.4.A, G.6.D, G.8.A, G.8.B |  |
| ~90 |  | 2.3: Measurement in Right Triangles | Pre-AP Model Lesson 2.8: Introducing the Tangent Ratio | 2.3.4, 2.3.5, 2.3.7 | G.9.A, G.9.B |  |
| ~135 |  | 2.3: Measurement in Right Triangles | Pre-AP Model Lesson 2.9: The Sine and Cosine Ratios | 2.3.4, 2.3.5, 2.3.7 | G.9.A, G.9.B |  |
| ~45 |  | 2.3: Measurement in Right Triangles | SpringBoard Lesson 22-4: Solving Right Triangles  SpringBoard Mini-Lesson: Applications of Right Triangle Trigonometry | 2.3.6 | G.6.B |  |
| ~45 |  | 2.2, 2.3 | **Learning Checkpoint 2**  *This learning checkpoint can assess any of the learning objectives from its associated Key Concepts.* |  |  |  |
| ~45 |  | 2.1, 2.3 | **Performance Task**  Prove Me Wrong  *This performance task assesses learning objectives and essential knowledge statements addressed in the unit.* |  | G.2.A, G.2.B, G.5.C, G.9.A |  |

[add or remove rows as needed]

### Reflections

What went well in this unit?

When were students most engaged during this unit?

How have students grown? What opportunities for growth stand out at this time?

What needs modification or differentiation next time?

## Unit 3 Measurement in Congruent and Similar Figures

| **Pacing in min** | **Actual Date(s)** | **Key Concepts** | **Materials/Resources/Tasks**  *Pre-AP Model Lessons, Additional Lessons, Textbooks,  Performance Tasks, Assessments* | **Learning Objectives** | **State Standards** | **Reflections on  Areas of Focus & Shared Principles** |
| --- | --- | --- | --- | --- | --- | --- |
| ~45 |  | 3.1: Transformations of Points in a Plane | Pre-AP Model Lesson 3.1: Symmetries of Objects | 3.1.3 | G.3.D, G.4.A |  |
| ~45 |  | 3.1: Transformations of Points in a Plane | Pre-AP Model Lesson 3.2: Rigid Motions Without Coordinates | 3.1.1, 3.1.2, 3.1.4 | G.3.B, C |  |
| ~90 |  | 3.1: Transformations of Points in a Plane | Pre-AP Model Lesson 3.3: Rigid Motions in the Coordinate Plane | 3.1.1–3.1.4 | G.3.A–D, G.4.A |  |
| ~90 |  | 3.1: Transformations of Points in a Plane | Pre-AP Model Lesson 3.4: Dilations | 3.1.5, 3.1.6 | G.3.B, G.3.C, G.4.A, G.7.A, G.10.B |  |
| ~45 |  | 3.1: Transformations of Points in a Plane | Pre-AP Model Lesson 3.5: Defining Congruence and Similarity Through Transformation | 3.1.1, 3.1.3–3.1.6 | G.3.A–D,  G.4.A, G.6.C, G.7.A, G.10.B |  |
| ~45 |  | 3.1 | **Practice Performance Task**  Transformations in the Coordinate Plane  *This practice performance task assesses learning objectives and essential knowledge statements addressed up to this point in the unit.* |  | G.3.A–D,  G.4.A, G.6.C, G.7.A, G.10.B |  |
| ~180 |  | 3.2: Congruent and Similar Polygons | SpringBoard Activity 11: Congruence Transformations and Triangle Congruence | 3.2.1, 3.2.2 | G.4.A, G.5.A, G.6.B, G.6.C |  |
| ~135 |  | 3.2: Congruent and Similar Polygons | SpringBoard Activity 18: Similar Triangles | 3.2.3 | G.4.A, G.7.B, G.8.A |  |
| ~360 |  | 3.2: Congruent and Similar Polygons | SpringBoard Activity 15: Quadrilaterals and Their Properties  SpringBoard Activity 16: More About Quadrilaterals | 3.2.4 | G.4.A, G.5.A, G.6.A, G.6.D, G.6.E |  |
| ~45 |  | 3.1, 3.2 | **Learning Checkpoint 1**  *This learning checkpoint can assess any of the learning objectives from its associated Key Concepts.* |  |  |  |
| ~90 |  | 3.3: Measurement of Lengths and Angles in Circles | Pre-AP Model Lesson 3.6: The Equation of a Circle | 3.3.1, 3.3.2 | G.12.E |  |
| ~45 |  | 3.3: Measurement of Lengths and Angles in Circles | Pre-AP Model Lesson 3.7: Intersections of Circles and Lines | 3.3.8 | G.11.A, G.12.E |  |
| ~45 |  | 3.3: Measurement of Lengths and Angles in Circles | Pre-AP Model Lesson 3.8: Lines Tangent to a Circle | 3.3.7, 3.3.8 | G.5.A, G.12.A |  |
| ~180 |  | 3.3: Measurement of Lengths and Angles in Circles | SpringBoard Activity 25: Arcs and Angles  SpringBoard Mini-Lesson: Arcs and Angles | 3.3.4, 3.3.5 | G.5.A,  G.12.A, G.12.B |  |
| ~135 |  | 3.3: Measurement of Lengths and Angles in Circles | SpringBoard Activity 32: Length and Area of Circles | 3.3.3, 3.3.6  4.1.2 | G.4.A, G.5.A, G.12.A–D |  |
| ~45 |  | 3.3 | **Learning Checkpoint 2**  *This learning checkpoint can assess any of the learning objectives from its associated Key Concepts.* |  |  |  |
| ~45 |  | 3.3 | **Performance Task**  Olga’s Walkie Talkie  *This performance task assesses learning objectives and essential knowledge statements addressed in the unit.* |  | G.2.B, G.12.E |  |

[add or remove rows as needed]

### Reflections

What went well in this unit?

When were students most engaged during this unit?

How have students grown? What opportunities for growth stand out at this time?

What needs modification or differentiation next time?

## Unit 4 Measurement in Two and Three Dimensions

| **Pacing in min** | **Actual Date(s)** | **Key Concepts** | **Materials/Resources/Tasks**  *Pre-AP Model Lessons, Additional Lessons, Textbooks,  Performance Tasks, Assessments* | **Learning Objectives** | **State Standards** | **Reflections on  Areas of Focus & Shared Principles** |
| --- | --- | --- | --- | --- | --- | --- |
| ~90 |  | 4.1: Area as a Two-Dimensional Measurement | Pre-AP Model Lesson 4.1: Shear Transformations and Cavalieri’s Principle | 4.1.1 | G.11.A, G.11.B |  |
| ~135 |  | 4.1: Area as a Two-Dimensional Measurement | SpringBoard Activity 32: Length and Area of Circles | 3.3.3, 3.3.6  4.1.2 | G.4.A, G.5.A, G.12.A–D |  |
| ~45 |  | 4.1: Area as a Two-Dimensional Measurement | Locally-developed lesson | 4.1.3 | G.10.B |  |
| ~90 |  | 4.2: Volume as a Three-Dimensional Measurement | Pre-AP Model Lesson 4.2: Volumes of Prisms and Cylinders | 4.2.1, 4.2.3, 4.2.5 | G.10.A, G.10.B, G.11.A, G.11.D |  |
| ~45 |  | 4.2: Volume as a Three-Dimensional Measurement | SpringBoard Lesson 34-2: Volumes of Prisms and Cylinders | 4.2.6 | G.4.D, G.11.D |  |
| ~135 |  | 4.2: Volume as a Three-Dimensional Measurement | SpringBoard Activity 35: Pyramids and Cones | 4.2.2, 4.2.4, 4.2.6 | G.4.D, G.10.A, G.11.C, G.11.D |  |
| ~45 |  | 4.2 | **Practice Performance Task**  Digging a Ditch  *This practice performance task assesses learning objectives and essential knowledge statements addressed up to this point in the unit.* |  | G.10.A, G.11.A, G.11.B, G.11D |  |
| ~45 |  | 4.1, 4.2 | **Learning Checkpoint 1**  *This learning checkpoint can assess any of the learning objectives from its associated Key Concepts.* |  |  |  |
| ~135 |  | 4.3: Measurements of Spheres | SpringBoard Activity 36: Spheres | 4.3.1–4.3.4 | G.4.D, G.11.C, G.11.D |  |
| ~45 |  | 4.2, 4.3 | **Learning Checkpoint 2**  *This learning checkpoint can assess any of the learning objectives from its associated Key Concepts.* |  |  |  |
| ~45 |  | 4.3 | **Performance Task**  Star Energy  *This performance task assesses learning objectives and essential knowledge statements addressed in the unit.* |  | G.11.C, G.11.D |  |

[add or remove rows as needed]

### Reflections

What went well in this unit?

When were students most engaged during this unit?

How have students grown? What opportunities for growth stand out at this time?

What needs modification or differentiation next time?