

Unit 4 Week 4	<b>Whole Group Math - Giant Geometric Shapes</b> Higher Level Technology Supplement	<b>ISTE-S</b> <b>3, 4, 5</b>	<b>Standards:</b>
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*[book covers that represents the book(s) the lesson touches upon]*

***Technology Concepts***

- Students develop ideas and theories about how to complete a challenge and then pursue answers and solutions by trying various programming strategies
- Students show perseverance as they work to complete coding each geometric shape
- A sequence of steps are identified as students analyze data to explore possible solutions

<p><b><i>Materials:</i></b></p> <ul style="list-style-type: none"> <li>● Masking Tape</li> <li>● Smartphone or tablet</li> <li>● Sphero Mini</li> </ul>	<p><b><i>Vocabulary:</i></b></p> Coding Programming Pathway Sequence of steps Debugging (finding and fixing problems) Decomposition (break complex tasks down to manageable parts)
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***Preparation:***

**[Sphero Mini](#)**

This video explains setting up the Sphero Mini and provides a quick tutorial on how to use the Sphero Mini

*Any Sphero can be used in the activities. The Sphero Mini was selected for the technology lessons based on affordability.*

Sphero Mini fully charged

Tablet or Smartphone ready with Sphero.edu app open

Large geometric shapes created on floor with masking tape

***Procedure:***

Children (with heavy scaffolding by teacher at first) plan out pathways on paper for Sphero to follow on geometric designs

Children engage Sphero and talk through solutions if pattern not followed. Repeat until geometric tape pattern is followed.