

## **Agree & Disagree Statements (A&D Statements)**

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Agree & Disagree Statements (A&D Statements) provide an opportunity for students to practice metacognition (thinking about their own understanding). Students use A&D Statements to analyze a set of “fact or fiction” statements which “primes the pump” for inquiry by having students describe how they could prove each statement using concrete or virtual tools, mathematical procedures, conduct an investigation or identify information sources that would help them determine the validity of the statement. In small groups, A&D Statements encourage mathematical or scientific discussion and argumentation. Students solidify their own thinking, consider other views, and modify their thinking as new information replaces or becomes assimilated into their existing knowledge and beliefs by defending or challenging arguments aimed at the statements.

### **How to implement the strategy:**

1. Select A&D Statements that focus on specific concepts and skills students will encounter with the topic. Develop statements that can lead into inquiry with hands-on materials, books, videos or other information sources.
2. Give students the opportunity to respond to each statement individually. If students choose disagree or it depends on, ask them to provide an example that refutes the statement or makes the statement true in some cases but not in others.
3. Have students discuss their ideas in small groups, coming to consensus on whether they agree with the statement while noting any disagreements among group members.
4. After considering each other’s’ ideas, students should design a way to further test or research information. Allow time for small groups to investigate the statements as exploratory activities.
5. Use the experiences for whole class discussion aimed at resolving discrepancies between students’ initial ideas and discoveries made during the exploration. The teacher should build off the students’ ideas to provide guidance and clarification that will help students accommodate new scientific or mathematical understandings.

### **Adapted from**

- Keeley, Page (2008). *Science formative assessment: 75 practical strategies for linking assessment, instruction, and learning*. Thousand Oaks, CA. Corwin.
- Keeley, Page (2011). *Mathematics formative assessment: 75 practical strategies for linking assessment, instruction, and learning*. Thousand Oaks, CA. Corwin.

**Sample A & D Statements**

<b>Statement</b>	<b>How Can You Find Out?</b>
<p>1. Denominators must be greater than numerators.</p> <p>___agree ___disagree ___it depends on ___not sure</p> <p>My thoughts:</p>	
<p>2. Decimals can be written as fractions.</p> <p>___agree ___disagree ___it depends on ___not sure</p> <p>My thoughts:</p>	
<p>3. Dividing a number by a fraction makes a larger number.</p> <p>___agree ___disagree ___it depends on ___not sure</p> <p>My thoughts:</p>	