

## M2C3 Planning Tool: Assumption-building Routine

**Purpose:** Assumption-building routines develop students' critical thinking skills and abilities to make inferences about a given authentic situation. Assumption-building routines can stand alone, follow a mathematizing the world routine, or be part of the launch of a complete mathematical modeling task.

### **What is an assumption? An assumption is...**

- Your best guess
- Something you think will be true
- A good planning step
- An informed decision (sometimes based on personal experience)
- A reasonable idea
- An answer to your “wonderings”
- A decision we make when we don't have the answer to what we need to know

**Different assumptions allow us to come to different conclusions.**

### **Where-When-What Prompts**

*Where* was this photo taken?

*When* do you think these events happened?

*What* is happening in this video?

**Focus on inferences you can make based on the information available or on prior knowledge and experiences.**

**Step 1:** Present an image, video, or object and a question

**Step 2:** Have a brief group discussion of several things you would need to know or consider to figure out the question.

**Step 3:** Identify several “need to knows” where the answer/information is not readily available. These are places where students need to make assumptions.

**Step 4:** Ask students to work in pairs to generate a list of reasonable assumptions and unreasonable assumptions for each “need to know”

**Step 5:** Ask pairs to share their assumptions in small groups, and discuss which are reasonable and which are unreasonable, and why.

If following a “what do you notice/wonder” routine, you can say that assumptions are decisions you make to “answer your wonderings.” For example, “We are going to think about what would be reasonable answers to our wonderings, and what might be unreasonable answers.”