

# The Imitation Game

[Students learn to ask good questions in order to determine to whom they're talking]

## Time Estimate

30-45 minutes



## Preparation Thermometer

2



## Preparation

This is a complex activity. Read through it more than once before doing it in class. In addition, read the glossary materials so you have a handle on the purpose of the imitation game and Turing test.

## Materials

- Post-it Notes or small pieces of paper (quarter-sheets, for example)
- A pen and paper (just one for you) or a white board or poster board and a marker

## Glossary

Turing Test



## BIG IDEA for Kids

Before we determine whether engineers have created artificial intelligence good enough to pass for human intelligence, we need some practice asking good questions! Instead of testing a human and a computer, in this activity we test whether we can determine who is a boy and who is a girl by asking questions.

## Open the Window

--If you were talking to a boy and a girl, but both the boy and girl were pretending to be a girl, how would you figure out who is who?

--What are "stereotypes"? Are they a good or bad thing? Should we use them to help us make decisions, and why or why not?

# Activity Instructions

1. Read students the following:

Your phone buzzes. It's a text—"Hi." The number is unfamiliar.

You text back. "Who is this?"

"Either Catalina or Paulie. You figure it out."

You know immediately it's Paulie. Catalina would never risk being mistaken for Paulie, even if it were part of a game. If Paulie had said anyone besides Catalina, it probably would have taken longer to figure out.

Hmm, you think. This might make some good practice. If I'm going to have to test artificial brains for Rio by asking them questions, maybe I can practice by asking questions to figure out whether I'm talking to a guy or a girl.

2. Explain that you will choose one boy and one girl from the class. The boy's goal is to convince the class that he is the girl. The girl's goal is to convince the class that she is the girl, but she must answer honestly. The class' goal is to ask good questions to figure out who the girl really is.

3. Choose one boy and one girl. They should go to the back of the room or in the hallway where no one can see them.

4. Choose a "messenger." This person must silently choose to assign the letter A to either the boy or the girl and B to the other.

5. The rest of the class should come up with questions to ask the boy and girl to figure out who the real girl is. When someone comes up with a question, the boy and girl should each write their answer on a post it note. The messenger should pick up the notes from them and read them to the class. On a wall, table, floor, or white board, the messenger should put all the "A" notes together and all the "B" notes together.

6. After the class receives each answer, one or two members of the class should say who they think the real girl is and why. Record these reasons on a white board, poster board, or piece of paper.

7. After 10-20 questions, have the class vote on who is the boy and who is the girl.

8. Have the messenger, boy, and girl reveal the correct answer.

9. Now that they know who the real girl was, ask a few students to share what they thought the best question was and why. Record these answers on the same white board, poster board, or piece of paper.

10. Ask the boy to reveal his strategies for trying to convince the class. Record these as well.

11. Ask students to make observations about what strategies members of the class (including the boy) used. Reread what you've recorded or show students what's on the white board or poster board. In particular, ask students whether they think they used "stereotypes," or ideas/assumptions about what it means to "be a girl."

14. Using another poster board, piece of paper, or white board, ask students (as a class) to make a list of:

--The best questions or kinds of questions for determining who is the real girl

15. Returning to the beginning of the activity, ask students to discuss or journal about the following questions:

--Are there any stereotypes of humans vs. computers? What are they?

--Should computers be able to fit some human stereotypes? For example, do we want robots to have emotions? Why or why not?

--If we wanted to tell a computer how to tell the difference between a boy and a girl's answers, would it be a good idea to use stereotypes of boys and girls?

--Do you think any of the questions we listed would also work well for determining whether you're talking to a machine or a human (instead of a boy or a girl)? If not, what questions do they think would work well? Have them make a list in their journal.

# The Imitation Game

## View From My Window:

## Extended/Family Learning

See if you notice yourself using stereotypes outside of our time together. What are you using them for? Why? Is it a good strategy? Why or why not?

## Imaginative Education Tools

Story, sense of mystery, games, drama and play, sense of reality, extremes and limits of reality

## Teacher Notes: