

WHAT IS A SCIENTIST?

- A researcher
- Someone who makes discoveries
- A scholar

Have we left something out?

HOW TO BE A SCIENTIST

- Ask important and tractable questions
- Become skilled at getting the data needed for answering the questions

And, oh, of course, you should tell somebody what you did.

Write it up. Publish it.

WHY IS PUBLISHING IMPORTANT?

- Sharing information is part of it, but there's more.
- Publishing is a critical part of what is all about.
- If you don't publish, you aren't doing science.

KARL POPPER

- The hypothetico-deductive method
- Steps
 - Generating hypotheses
 - Deducing predictions
 - Testing

WHAT MAKES A HYPOTHESIS SCIENTIFIC?

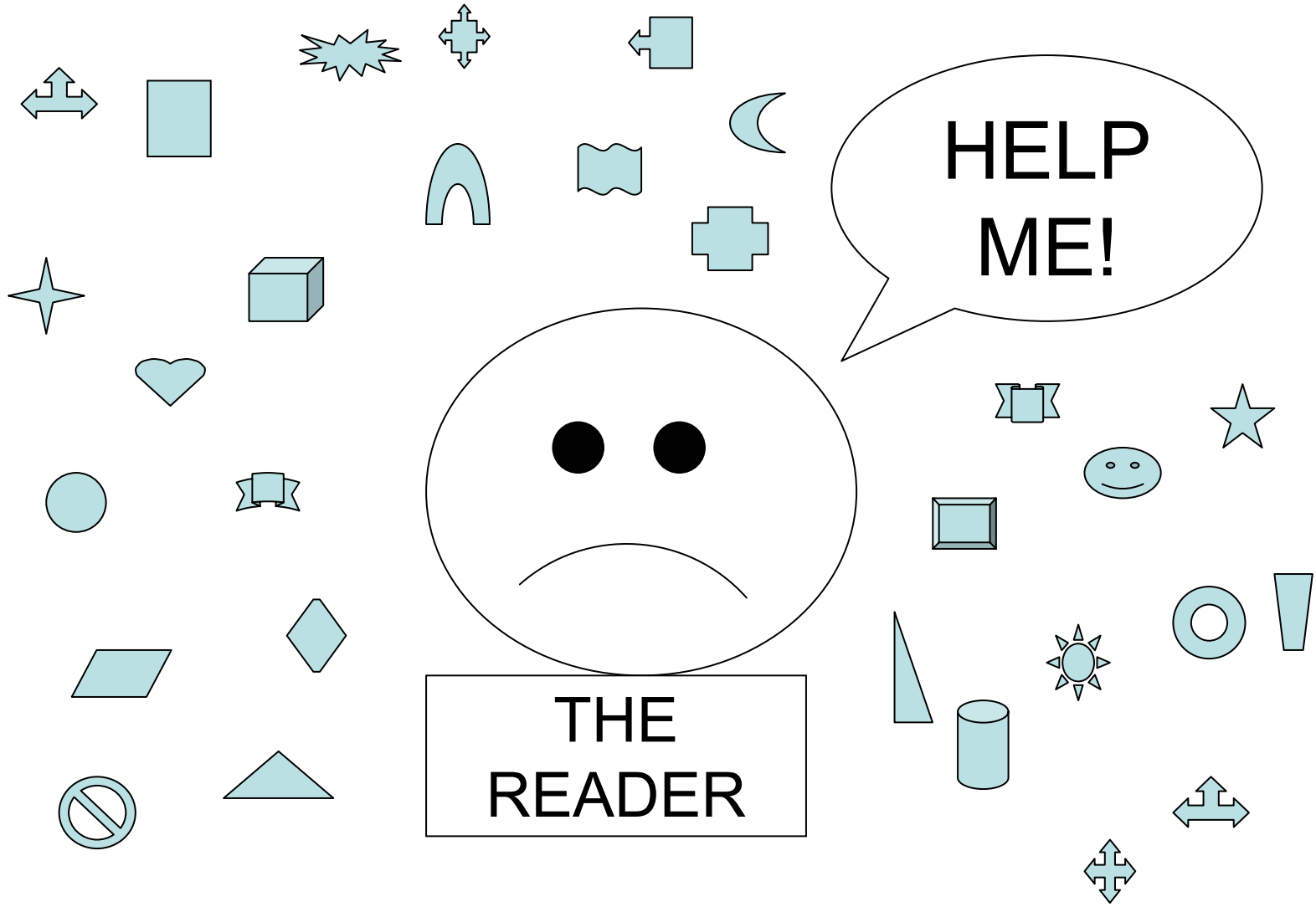
- A scientific hypothesis is 'falsifiable'.
- Testing is seeing whether the hypothesis will stand up when efforts are made to show it's wrong

Publishing is the normal,
recognized way of making
research scientific (i.e., subject
to attempts to prove the
conclusions wrong)

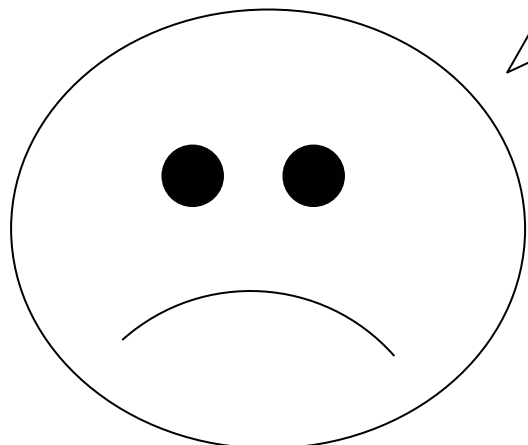
Without publishing, research
isn't really science

What is a scientist

- A professional writer
- Does research to get material to write about



HELP
ME!



THE
READER

BASIC FORMAT OF A STANDARD SCIENTIFIC PAPER

- Introduction (what the paper is about)
- Materials and methods (how the work was done)
- Results (what was found)
- Discussion (what it means) (interpretation)