Technical Communication
TODAY’S GOALS

Understand the value of effective communication

Recognize the engineer’s role as a communicator
Communication
Activity 1
Communication

The act or process of using words, sounds, signs, or behaviors to express or exchange information achieved when audience receives, understands, retains, and acts on information in some way.
TECHNICAL COMMUNICATION
Explaining Concepts
Science communication

scientists

the public

Source: www.americanscientist.org
Be Concise
Be Clear
Be Engaging
is a magic number!
Task 1: Identify the science that the audience should know

START WITH THE
WHAT
WHY
HOW
Keep It Focused
Task 2: Determine what people know
GET CUES FROM YOUR AUDIENCE
GET CUES FROM YOUR AUDIENCE

From the American sitcom The Office
Communication Activity 2
Task 3: Fill them in on the gaps/the details

UNPACK THE SCIENCE
Most of the fundamental ideas of science are essentially simple, and may, as a rule, be expressed in a language comprehensible to everyone.

- Albert Einstein
Keep It Focused
If you don’t know what it is, there is no way you can explain it to others.

- Prof. Kristin Sainani, Stanford University
*Writing for the Lay Public: Engaging and Educating the General Population*
“…Here we leverage the wide usage of smartphones with built-in accelerometry to measure physical activity at the global scale. We study a dataset consisting of 68 million days of physical activity for 717,527 people, giving us a window into activity in 111 countries across the globe. We find inequality in how activity is distributed within countries and that this inequality is a better predictor of obesity prevalence in the population than average activity volume.”
Original Summary
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Simplified Summary
Researchers used data from smartphones to look at the walking habits of 717,527 people from 111 countries. Countries with the widest gaps between the most active and least active people also had the highest obesity rates. Surprisingly, this “activity inequality” was a stronger predictor of obesity than the total amount of activity.

Source: Sainani (2017)
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Be Concise
Be Clear
Be Engaging
STOP
- Rushing

LOOK
- For Connections
- For Opportunities

LISTEN
- To Questions
- To Feedback
WHAT DO ENGINEERS DO?
Finish with the curiosity statement.

Engineers help (WHO) to (WHAT) so they can (BENEFIT)

- Tim David

Author, Magic Words: The Science and Secrets Behind Seven Words That Motivate, Engage, and Influence
Knowledge

Experience

Credit: Hugh MacLeod, Cartoonist
is a magic number!
Be Concise
Be Clear
Be Engaging
3 TASKS IN SCIENCE COMMUNICATION

1. Identify Relevant Science that Audience Should Know
2. Determine What Audience Already Knows
3. Fill the Gaps/Provide Details
