In the Name of God

Chapter 6: Reading Map

A. STEM employment

1. "The future of the economy is in STEM" → Statistical data by BLS support this idea.
2. Employment in STEM career is growing faster than employment in other fields.
3. It is estimated that STEM workers earn higher salaries (wages)
4. Different occupations → Different employment growth rate
5. Engineering occupations → Top-paying occupations

B. STEM Occupations: Rewarding and challenging perspectives

STEM work is both **rewarding** and **challenging**.

Rewarding features	Challenging features
1. **Interesting** projects with **meaningful** results 2. **Intellectually stimulating** jobs 3. Enjoying **collaboration** with like-minded people 4. Working with **cutting-edge technology** 5. Doing **innovative** projects with **tangible** results 6. **Variety** is experienced as every problem is unique or there are different approaches to solving a single problem 7. STEM workers' professional development is **dynamic** (being up-to-date and life-long learners)	1. **Repeating** an experiment many times 2. Navigating **complex government regulations**. 3. **Demanding** and **tedious** projects 4. **Lengthy** and **time-consuming** projects 5. **Routine tasks** may include cataloging data, filling out paperwork, and documenting observations

C. STEM workers' required skills

What skills do STEM workers require?

Thinking skills + Communication skills

Thinking skills	Communication skills
1. Considering **problems** from different perspectives by adapting knowledge from **different disciplines** 2. **Creative critical thinking** is required for detecting mistakes, gathering relevant information, and understanding how different systems interact 3. Developing **innovative, cost-effective solutions**	1. **Clearly explaining** a solution 2. **Conveying** oral and written information clearly 3. **Communication skills** include technical writing, public speaking, interpersonal communication, and the ability to explain difficult concepts simply

D. STEM occupations and academic degrees:

Academic degree is not a prerequisite for many STEM occupations

High school diploma

Associate's degree

Bachelor's degree

Master's degree/ Doctoral degree: Advanced and research-based occupations

E. STEM workers and work experience

* Theories do not make a successful STEM worker

* University-Industry Connection

*** On-the-job (OJT) training, internship, volunteer, and research opportunities**

* Companies require productive and up-to-date employees

Why field experience?

- Gain expertise
- Update knowledge
- Recognize interest
- Stand out

Working in STEM means making an investment in a **passion**.

No passion  No success

F. Networking for STEM workers

Your network is more important than your resume

Include mentors, business colleagues, and instructors in your network.

How to establish your network?

- Meeting people through work, volunteer, and internship positions
- Joining a club or working on a research project
- Participating in job fairs, industry events, and online discussion boards.