Problem-based learning (PBL) is an instructional method that develops problem solving strategies and disciplinary knowledge by making students active problem solvers of real world problems. It is used to engage students in learning. Students acquire factual knowledge, master general principles or concepts, and transfer these to solve the problem. Students will work through this process in an iterative fashion, redefining the problem and gathering new information.

Problem-based Learning “Medical” Model (Iterative)

1. Present the problem statement. Introduce an “ill-structured” problem or scenario to students. They should not have enough prior knowledge to solve the problem.

2. List what is known (data). Student groups list what they know about the scenario and what they need to know.

3. Develop a problem statement. A problem statement should come from the students’ analysis of what they know.

4. List what is needed (learning issues). Presented with a problem, students will need to find information from a variety of sources to fill in missing gaps.

5. Generate and list possible actions, recommendations, solutions, or hypotheses.

6. Share and analyze data. Revisit hypotheses, seek more information if needed, make recommendation.

7. Present and support the solution. As part of closure, teachers may require students to communicate, orally and/or in writing, their findings and recommendations.

Recommended Digital Resources

1. List data, generate questions and hypotheses
   - **Popplet** - Create a web that includes text, images, or drawings.
   - **Padlet** - Create a web/wall that includes text, images, video, or links.
   - **iBrainstorm** - Collaborative corkboard to draw on or add sticky notes.
   - **Idea Sketch** - Draw a diagram, mindmap, concept map, or flow chart and convert to text outline or vice versa.
   - **Lino** - Online stickies and canvases.
   - **Whiteboard** - Collaborative drawing surface.
   - **Google Docs** - Collaborative planning, writing, sharing and editing.
   - **Today’s Meet** - Back channel discussion, questioning, hypotheses.

2. Curation of resources
   - **Google Drive/Sites** - Store documents, pictures, and other files and easily share and collaborate with others.
   - **Glassboard** - Message a group of people quickly.
   - **Evernote** - Great note taking and organizational app.
   - **Padlet** - Create a web/wall that includes text, images, video, or links.
   - **Schoology** – Store and share documents, images, videos, and other files and easily share and collaborate with others.
   - **Edmodo** – Store and share documents, images, videos, and other files and easily share and collaborate with others.
   - **LibGuide** - Store and share documents, pictures, and links.
   - **Symbaloo** – Create a wall that includes text, images, videos, or links.

3. Research and Analysis
   - **Note Taking:**
     - **Google Drive** - Store documents, pictures, or other files and share and collaborate easily with others.
     - **Evernote** - Great note taking and organizational app.
     - **Dropbox** - Free service that lets you bring all your photos, docs, and videos anywhere.
     - **Nearpod** – Interactive presentation, collaboration, and real-time assessment tools.
     - **Top Notes** – Annotate PDFs and take notes.
     - **Paper by FiftyThree** – Draw, sketch, spotlight, create notes and ideas.
     - **Scratchwork** – Note-taking and web browsing side-by-side.

4. Product/Solution
   - **Voice and Audio:**
     - **VoiceThread**
     - **Audioboo**
     - **Fotolr**
     - **GarageBand**
   - **Report Writing:**
     - **Pages**
     - **Notes**
     - **StoryBuddy**
   - **Photo Collage:**
     - **Pic Stitch**
     - **Pic/Photo Collage**
     - **Skitch**
**Movies and Animation:**
- iMovie
- Animoto
- Toontastic
- Storyboards
- Comic Life
- PowToon

**Presentation:**
- Keynote
- Prezi
- Animation Express
- Screen Chomp
- Puppet Pals
- Sock Puppets

**Literature: Informational and Fiction (Read Alouds & Novels)**

**Primary**
- *A Place Where Sunflowers Grow* by Amy Lee-Tai
- *Baseball Saved Us* by Ken Mochizuki
- *The Bracelet* by Yoshiko Uchida
- *Fish for Jimmy: Inspired by One Family's Experience in a Japanese American Internment Camp* by Katie Yamasaki
- *Flowers from Mariko* by Rick Noguchi
- *So Far from the Sea* by Eve Bunting

**Intermediate**
- *Best Friends Forever: A World War II Scrapbook* by Beverly Patt
- *The Children of Topaz: The Story of a Japanese-American Internment Camp: Based on a Classroom Diary* by Michael O. Tunnell
- *Dash* by Kirby Larson
- *A Diamond in the Desert* by Kathryn Fitzmaurice
- *Dust of Eden* by Mariko Nagai
- *Paper Wishes* by Lois Sepahban
- *Sylvia & Aki* by Winifred Conkling
- *Thin Wood Walls* by David Patneaude
- *Weedflower* by Cynthia Kadohata

**Secondary**
- *Dear Miss Breed: True stories of the Japanese American Incarceration During World War II and a Librarian Who Made a Difference* by Joanne Oppenheim
- *Farewell to Manzanar: A True Story of Japanese American Experience During and After the World War II Internment* by Jeanne Wakatsuki Houston
- *Four-Four-Two* by Dean Hughes
- *Take What You Can Carry* by Kevin C. Pyle

**Internet Resources**
- National Archives: http://DocsTeach.org
Presentation References


