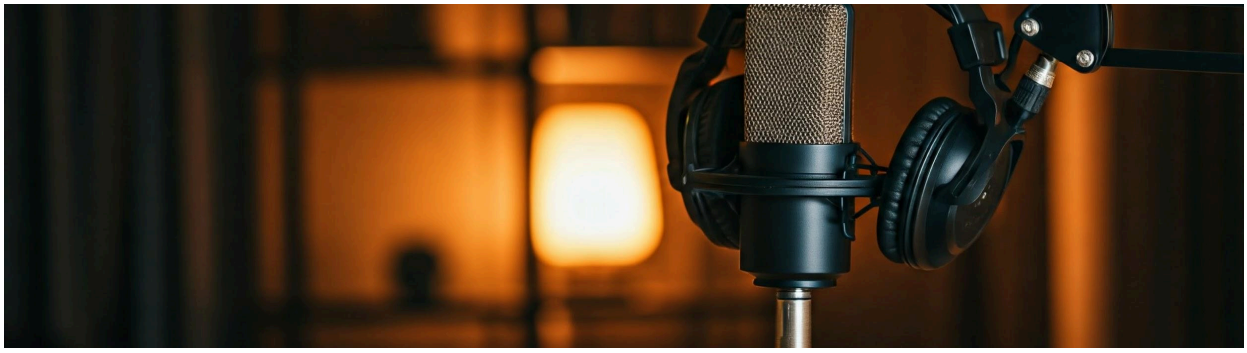

Lesson Plan for Life's Next Lesson Podcast: Maker Mentality for Retired Teachers

Target Audience:

- Retired teachers interested in exploring new creative outlets and learning opportunities.
- Individuals with a passion for lifelong learning and a desire to share their skills and knowledge.
- Current teachers wanting to develop a better understanding of how “making” can provide their students with a deeper understanding and higher level of engagement in ANY subject matter.

Learning Objectives:

- Define the "maker mentality" and its core principles.
- Explore the benefits of adopting a maker mentality for personal and professional growth.
- Identify various maker activities and projects suitable for retired teachers and students.
- Provide practical steps and resources for getting started with maker projects.
- Inspire and motivate retired teachers to embrace their creativity and embark on a new learning journey.

Follow the Old Guy Making on Social Media:

Instagram and Facebook:

Taylor's_cadillac_ranch
A daily vlog outlining the progress made on an abandoned house Tom is renovating with his daughter Taylor lovingly called the Cadillac Ranch (after the 1968 Cadillac Deville left in the driveway). The project is a true testament to the human spirit and volunteerism as friends and family have rallied behind Taylor after she experienced the devastating loss of her long term boyfriend in a tragic motorcycle accident. A high school teacher herself, in today's market, this was the only way she could afford to be a homeowner.

Driftless_hardwoods
Brother Tim's hardwood sawmill business specializing in custom cutting and drying of hardwoods sustainably harvested in the Driftless Area of Wisconsin. Tom and Tim's adventures in the woods and at the mill are highlighted here daily.

Wimke.llc
Tom's "sister" business to Driftless Hardwoods where he transforms the beautiful hardwoods into counter tops, mantles, furniture and other creations are highlighted here.

WHen he finds some time he plans to expand to youtube and TikTok with more "how to" type content.

Juranimal
Tom's personal account. Usually the items above are cross posted here but also includes other family related items, retirement escapades and of course a lot of dog photos of his English Creme Golden Retriever George.

The why for you and your students:

Rationale: Why the "Maker Mentality" and Making Can Enrich Learning for Students in Any Discipline

Contact Tom at juran.thomas@gmail.com to discuss how you can incorporate making into your class or how to get involved in woodworking or home renovation.

The "maker mentality"—a mindset focused on hands-on learning, problem-solving, and creativity—offers numerous educational benefits that can enrich student learning across all disciplines. By engaging students in making, whether it's through crafting, building, coding, experimenting, or designing, the maker movement fosters deeper, more meaningful learning experiences. Here's why it can be superior to traditional teaching methods:

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1. Active, Experiential Learning

- **Engagement Through Action**: The maker mentality shifts students from passive recipients of information to active creators and problem-solvers. Students do not just read about concepts or listen to lectures; they engage directly with the material. This hands-on approach promotes deeper retention, better understanding, and more intrinsic motivation.
- **Learning by Doing**: Active participation is a well-established principle of effective learning. For example, a student in a science class who builds a model of the solar system, conducts a chemistry experiment, or programs a robot is not just learning the theory behind these concepts; they are internalizing them through experience. This leads to more lasting and authentic knowledge acquisition.

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2. Critical Thinking and Problem-Solving Skills

- **Real-World Application**: Making encourages students to tackle real-world problems and challenges. Whether students are building a bridge out of popsicle sticks in an engineering lesson or creating a sustainable garden design in an environmental science class, they must think critically, plan, test, and iterate.
- **Failure as Feedback**: In the maker process, failure is not a setback but a learning opportunity. When something doesn’t work, students engage in troubleshooting, reflection, and redesign, which cultivates resilience,

adaptability, and problem-solving skills. These are key competencies that are transferable to any field or discipline.
- **Interdisciplinary Thinking**: Making often involves cross-disciplinary thinking. For instance, designing a wearable device might combine principles of biology (human anatomy), engineering (mechanical systems), and design (aesthetics). This encourages students to see connections between subjects and use knowledge from multiple areas to solve complex problems.

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3. Creativity and Innovation

- **Freedom to Explore Ideas**: The maker mentality fosters creativity by encouraging students to experiment with ideas and explore new ways of doing things. Students who engage in creative processes, whether they're writing a story, creating digital art, or designing a machine, are practicing innovation. This encourages original thought and the courage to try novel approaches.
- **Design Thinking**: The maker mindset is closely aligned with design thinking, a problem-solving framework used by innovators across fields. It encourages students to empathize with end-users, define problems clearly, ideate solutions, prototype their ideas, and test them. These steps mirror the processes used by entrepreneurs, engineers, and artists alike.

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4. Collaboration and Communication

- **Working Together**: Making is often a collaborative activity. Whether students are brainstorming ideas, building prototypes, or conducting experiments, they frequently work in teams. This fosters valuable collaboration skills, such as teamwork, negotiation, and leadership. In the process, students learn to listen to others' ideas, offer constructive feedback, and share their own thoughts in meaningful ways.
- **Enhanced Communication**: In a maker environment, students must often explain their ideas, the reasoning behind their designs, and how they overcame challenges. This encourages them to communicate effectively, both verbally and in writing. It also helps develop technical literacy, as

students need to explain their work in precise and often specialized language.

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5. Intrinsic Motivation and Ownership of Learning

- **Autonomy and Agency**: The maker mentality empowers students by giving them more control over their learning. In traditional settings, students are often recipients of pre-determined assignments and tasks. In maker-centered learning, students take the lead on projects, making decisions about what to create, how to approach problems, and how to present their final products.
- **Connection to Personal Interests**: Making encourages students to pursue their passions, allowing them to work on projects that matter to them personally. For instance, a student passionate about gaming could design a video game, while one interested in sustainability might build a composting system. This personal connection fuels intrinsic motivation, making learning feel more relevant and rewarding.

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6. Cultivating 21st-Century Skills

- **Digital Literacy**: In today's world, many aspects of making involve digital tools—whether it's coding, 3D printing, video production, or digital design. Students learn not just how to use technology, but how to harness it creatively, which is an essential skill in almost any career today.
- **Entrepreneurial Thinking**: Making also cultivates an entrepreneurial mindset. Students learn to approach challenges with a "how might we?" attitude, testing ideas, refining them, and ultimately producing a tangible product or solution. This can lead to a deeper understanding of entrepreneurship and innovation, which is increasingly important in our rapidly changing world.

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7. Personalized Learning and Individual Pacing

- **Differentiation**: Maker-based learning allows students to engage in projects that align with their personal strengths, interests, and learning styles. For example, a student who excels in visual arts might focus on designing a product prototype, while one with a strong mathematical aptitude might dive into the engineering and calculations behind the project. The flexibility in how projects are approached and the autonomy given to students fosters a more personalized and effective learning environment.
- **Self-Paced Progress**: Because making often involves trial and error, students can progress at their own pace. Some may need more time to refine their ideas, while others may move ahead quickly. This individualized pacing reduces the pressure to conform to rigid timelines and supports a deeper, more personalized engagement with the material.

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8. Real-World Relevance and Application

- **Engaging with Authentic Problems**: Making connects students to real-world challenges, making learning more relevant and meaningful. Whether students are working on creating a sustainable community garden, developing a mobile app, or designing assistive technologies for people with disabilities, they are solving authentic problems. This not only makes learning feel more applicable but also gives students the satisfaction of contributing to real-world solutions.
- **Preparation for Future Careers**: The skills developed through making—creativity, critical thinking, collaboration, and technical skills—are essential for many of today's careers. By engaging in maker-based projects, students develop competencies that are highly valued by employers in fields such as engineering, technology, design, and entrepreneurship.

Conclusion: The Superiority of the Maker Mentality in Education

The maker mentality offers a more holistic, dynamic, and engaging approach to learning compared to traditional teaching methods. It empowers students to take ownership of their learning, fosters critical thinking, encourages creativity, and prepares them for success in an ever-changing world. Rather than simply absorbing knowledge, students actively construct it, experimenting with ideas and finding innovative solutions to problems. This hands-on, experiential learning

approach not only makes education more enjoyable but also equips students with the skills they need to thrive in the 21st century. Ultimately, the maker mentality transforms students from passive learners into active creators—equipping them with the mindset, skills, and confidence to succeed both in school and in life.

3. Benefits of the Maker Mentality for Retired Teachers (15 minutes)

- Explore the personal and professional benefits of adopting a maker mentality, such as increased self-confidence, improved cognitive function, and a sense of purpose.
- Discuss the potential for retired teachers to share their skills and knowledge through maker projects and workshops.
- Highlight the social and community-building aspects of the maker movement.

4. Maker Activities and Projects for Retired Teachers (20 minutes)

- Showcase a variety of maker activities and projects suitable for retired teachers, such as woodworking, crafting, electronics, coding, gardening, and culinary arts.
- Share inspiring stories and examples of retired teachers who have successfully pursued maker projects.
- Discuss the importance of choosing projects that align with individual interests and skill levels.

5. Getting Started with Maker Projects (15 minutes)

- Provide practical steps and resources for getting started with maker projects, including online tutorials, local workshops, and maker spaces.
- Discuss the importance of setting realistic goals, starting small, and embracing the learning process.
- Encourage collaboration and knowledge-sharing within the maker community.

Tom's suggested reading list:

- If you feel you must read to get started in making, perhaps this lesson is not for you. This lesson is about DOING. The same way you feel that sense of accomplishment when you finish a good book is tenfold when you create something of value. #whatdidyoumaketoday
- If you feel you must, try researching the maker mindset. If you are still teaching, find ways to incorporate it into existing lessons. At Brookfield Central High School we were able to get every department/discipline into our maker space/fab lab to address one or more learning targets helping students develop a deeper understanding of the concepts being taught. Tom would love to come to your school and do a PD session on making!

Maker Resources:

1. Madison Area Makerspace (Madison, WI)

Focus: Woodworking, metalworking, 3D printing, electronics, textiles, and more.
Description: A community-driven space with access to a variety of tools, equipment, and workshops. It's ideal for people who want to explore hands-on activities like woodworking, crafting, and electronics.
Website: madisonmakerspace.org

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2. The Shed (Milwaukee Makerspace) (Milwaukee, WI)

Focus: Woodworking, metalworking, sewing, electronics, robotics, and more.
Description: A collaborative community space where people can create and build things. It offers classes, events, and equipment for a wide range of projects, including woodworking and metalworking.
Website: milwaukeemakerspace.org

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3. Green Bay Makerspace (Green Bay, WI)

Focus: 3D printing, electronics, woodworking, art, and textiles.
Description: A community makerspace providing access to tools, resources, and

classes for various creative endeavors. Retiring teachers can join and explore different types of making or volunteer to teach.
Website: greenbaymakerspace.org

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4. Appleton Makerspace (Appleton, WI)

Focus: Woodworking, welding, 3D printing, art, and more.
Description: Offers workshops and open studio time for members to work on personal or community projects. The space also includes woodworking and metalworking equipment.
Website: appletonmakerspace.org

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5. The Art Garage (Green Bay, WI)

Focus: Painting, ceramics, woodworking, and other crafts.
Description: The Art Garage is an inclusive arts community offering hands-on opportunities in a variety of media, including woodworking and painting. They offer classes and open studio time.
Website: artgaragegb.org

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6. The Woodshop at Madison College (Madison, WI)

Focus: Woodworking, furniture making, and crafts.
Description: Madison College offers open woodworking studios and a variety of woodworking classes. It's a great option for those looking to get into more advanced woodworking, and there's also a community of makers who participate in collaborative projects.
Website: madisoncollege.edu

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7. Milwaukee Pottery Collective (Milwaukee, WI)

Focus: Pottery and ceramics.
Description: This space is perfect for those interested in exploring pottery and

ceramics. It offers pottery classes, events, and a community of potters who share tips and techniques.
Website: milwaukeepotterycollective.com

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8. Shawano Area Makerspace (Shawano, WI)

Focus: Woodworking, metalworking, 3D printing, electronics, arts and crafts.
Description: A small community space focused on providing access to tools for people who want to try making and building things. It includes workshops and classes for all ages.
Website: shawanoarea.com

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9. The Cooking School of the Madison Area (Madison, WI)

Focus: Cooking and culinary arts.
Description: A culinary school offering hands-on cooking classes, including everything from baking to gourmet meals. Retiring teachers can learn new skills or develop a hobby in the kitchen.
Website: thecookingschool.com

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10. Greater Green Bay Botanical Garden (Green Bay, WI)

Focus: Gardening, horticulture, nature.
Description: A beautiful space to explore gardening and learn about plant care. They offer gardening classes and workshops, as well as volunteer opportunities for those looking to engage with nature and community.
Website: gbbg.org

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11. The Farm at Dover (Dover, WI)

Focus: Gardening, permaculture, and sustainable living.
Description: A working farm offering educational programs and hands-on experiences in sustainable gardening, food production, and eco-friendly living

practices.
Website: thefarmatdover.com

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12. Wisconsin Craft Council (Madison, WI)

Focus: Crafting and arts.
Description: An organization that connects and supports artists and makers in Wisconsin. It offers events, workshops, and exhibitions related to arts and crafts. It's a great network for retirees wanting to explore various creative outlets.
Website: wisconsincraftcouncil.org

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13. Riverwest Co-op (Milwaukee, WI)

Focus: Community gardening and local food.
Description: A member-owned cooperative in Milwaukee offering a space for urban gardening, local food initiatives, and sustainability projects. Retiring teachers interested in gardening and sustainability can connect with like-minded people here.
Website: riverwestcoop.org

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14. Wisconsin Historical Society – Wisconsin Makers Exhibits (Statewide)

Focus: Local history, craft traditions, and making.
Description: The Wisconsin Historical Society often hosts exhibitions and events related to craftsmanship and making traditions in Wisconsin. This is an excellent way for retirees to connect with the state's heritage of craftsmanship.
Website: wisconsinhistory.org

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15. The Urban Ecology Center (Milwaukee, WI)

Focus: Nature, gardening, and environmental education.
Description: With locations in Milwaukee, the Urban Ecology Center offers

educational programs related to urban gardening, sustainability, and environmental stewardship. Retiring teachers who enjoy nature and gardening might find this a great place to volunteer or learn.
Website: urbanecologycenter.org

Tips for Retiring Teachers:

- **Look for Local Meetups**: Many maker communities organize informal meetups or potlucks where you can share your experiences or get inspiration from others.
- **Volunteering**: Some of these spaces might have opportunities for retirees to volunteer and share their skills, teaching or mentoring the next generation of makers.
- **Class Participation**: Many of these spaces offer classes for all skill levels. You can take these as a fun way to dive into a new hobby or skill after retirement.

These spaces can help create a sense of community and creativity, while also offering hands-on experiences that promote learning, making, and personal growth.
