

# The Tesseract Plan

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**The 13 Components *You* Need for Leading Math Improvement in *Your* Schools**



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 Clothesline Math  
 Murrieta Valley USD





**Optimize & Sustain  
Systems for Improvement**

Feb 2026  
Virtual Leadership Summit

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@MathProjects



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## The Tesseract Plan Problem to Be Solved

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“We put our chairs in a circle,  
and started talking, and the next thing  
I knew we solved the problem.”

“PLC”  
in Name Only



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## The Tesseract Plan My Experience with the Solution

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## The Tesseract Plan Our 3 Axioms



**Students don't improve until teachers improve.**  
-- Dr. William Schmidt, University of Michigan



**Teachers don't improve until Leaders Improve.**  
-- Dr. Kenneth Leithwood, University of Toronto

**Every System is perfectly designed to get the results it gets.**  
-- Dr. W. Edwards Deming, The Deming Institute



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## The Tesseract Plan Purpose



**The purpose of  
The Tesseract Plan**



**is to radically improve the math education at  
your school(s) through focused, customized  
professional development of your leadership.**



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## The Tesseract Plan It's History



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## The Tesseract Plan Our Objectives & Success Criteria

**The Importance of  
Leadership and a Strategic Plan  
in developing a Professional Learning Community**




**Decide on your first step in  
improving your Leadership &  
Planning at your site.**



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## The Tesseract Plan Symbolism










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## The Tesseract Plan The 13 Components = 15 Lessons

<ol style="list-style-type: none"> <li>1. Your Why</li> <li>2. Your Plan – First Step</li> <li>3. Mission, Vision, Values &amp; Goals</li> <li>4. Building Your Team</li> <li>5. Their Guaranteed &amp; Viable Curriculum</li> <li>6. Your Data Systems &amp; Infrastructure</li> <li>7. Meeting Protocols</li> <li>8. No-Options</li> <li>9. Prerequisite Skills</li> <li>10. Grading Alignment</li> <li>11. Intervention</li> <li>12. Cycles of Inquiry</li> <li>13. Pathways</li> <li>14. Monitoring &amp; Reporting</li> <li>15. Your Plan</li> </ol>		<ul style="list-style-type: none"> <li>Empowerment</li> <li>Space &amp; Light</li> <li>Vision</li> <li>Problem Solving</li> <li>Prediction</li> <li>Narrative</li> <li>Structure</li> <li>Root Cause</li> <li>Root Cause</li> <li>Symmetry</li> <li>Time Travel</li> <li>Innovation</li> <li>Doorways</li> <li>Perspective</li> <li>Communal Planning</li> </ul>
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## The Tesseract Plan Unit 1: Lessons 1-4

### Preparing for *Your* Journey

1. Your Why  Empowerment
2. Your Plan – First Step  Space & Light
3. Mission, Vision, Values & Goals  Vision
4. Building Your Team  Problem Solving



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## The Tesseract Plan Your Plan: First Step



Space  
&  
Light

Problem: Too many competing initiatives and unclear priorities



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## The Tesseract Plan Clearing the Plate



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## The Tesseract Plan Clearing the Plate

You are eliminating **all of the "Noise"** on their plates.



You are making their [*teachers*] jobs more efficient, and **helping them to become Leaders.**



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## The Tesseract Plan The Task: A Long-Term Strategic Plan

### 6-Year Plan

Plan Component	Our Why		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Year 0	Year 1						
Plan Component								
Mission Vision, Values & Goals								
Building Teams								
Curriculum & Instruction								
Data Systems								
Meeting Processes								
Assessment								
Personnel Data								
Strategic Alignment								
Legal/Financial								
Resources								
Risk & Impact								



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## The Tesseract Plan The Task: A Strategic Plan

**Our Why: Results = Our Talents, Student Futures Depend On Us, Because We Can**

Plan Component	Year 0	Year 1	Year 2	Year 3
	19-20	20-21	21-22	22-23
Mission Vision, Values & Goals	Search for Schools' Visions Set BHAG	Align District Vision	All School Mission & Visions	
Building Teams	Tesseract for 6-12 Principals Create Data Leaders		Summer Training 6-12 Admin Shrink Remedial Math	Summer Training K-5 Admin Reboot Tesseract Return to Data Leaders

Plan Component	Year 4	Year 5	Year 6	Ultimate Goal
	23-24	24-25	25-26	
Newsletter Launch		Adjust Ed Services Vision	Collective Agreements	Continuous Advancement towards the Vision
Convert Data to PLT Leader, Training 1		PLT Leader Training 2	PLT Leader Training 3	Empowered, Engaged Leaders of PLCs
Guiding Coalitions		PLT Tracker	Tesseract Web Page	
Admin Checklist				
Book Study w/Admin				



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### The Tesseract Plan #5: Your Guaranteed & Viable Curriculum

**MPJ**

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### The Tesseract Plan #6: Data Systems & Hub

➤ **Data System?**

- 1 pt ➤ **Common Assessments**
- 1 pt ➤ **Input**
- 1 pt ➤ **Compiled**
- 1 pt ➤ **Report – Item/Standard/Name**
- 1 pt ➤ **Stored**

**MPJ**

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### The Tesseract Plan Unit 3: Lessons 8-10

#### Launching *Your* Teams

8. <b>No-Options</b>	The Root Cause
9. Prerequisite Skills	The Root Cause
10. Grading Alignment	Symmetry

**MPJ**

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## The Tesseract Plan #8: No-Options



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## The Tesseract Plan Unit 4: Lessons 11-12

### Improving *Your* Students & Teachers

- 11. Intervention                      Time Travel
- 12. Cycles of Inquiry                Innovation
- 13. Course Pathways                Doorways



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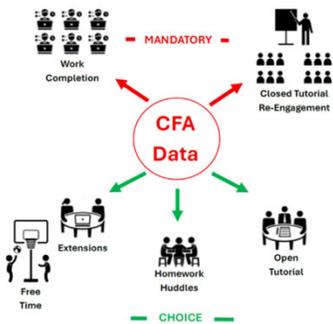
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## The Tesseract Plan #11: Intervention



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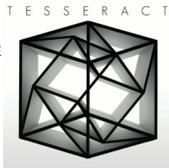
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## The Tesseract Plan #12: Cycle of Inquiry

### PLC Defined

“An ongoing process in which educators work collaboratively in **recurring cycles of collective inquiry** and action research to achieve better results for the students they serve. Professional learning communities operate under the assumption that the key to improved student learning is the job-embedded learning for educators.”



**Innovation**

Problems:

- PD days that spark excitement but no lasting change
- A lack of structure to move teachers to proficient practice
- Teachers stuck in early stages of implementation



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## The Tesseract Plan Cycle of Inquiry

**PD BUFFET**

**INSTRUCTIONAL MODEL**  
TO MEET GRADE LEVEL STANDARDS

Learning Environment	Instructional Design		Teacher Engagement	Checking for Understanding
<b>Room Environment</b> The physical layout of the classroom is designed to be effective for all students.	<b>Objective</b> Students can articulate the standards-based objective of the lesson.	<b>Conceptual Understanding</b> Tasks promote student thinking, discourse, and demonstration of learning.	<b>Meaningful Tasks</b> Relevant tasks facilitate student dialogue and demonstration of learning.	<b>Questioning</b> Questions require students to explain, elaborate, or clarify their thinking.
<b>Classroom Procedures</b> Predictable classroom routines are developed and taught to facilitate learning.	<b>Knowledge Building</b> Lessons build on and support student background knowledge and address identifiable skills.	<b>Differentiation</b> Instruction is scaffolded for content, process, and product.	<b>Interaction</b> Students engage in meaningful, structured collaboration around the content.	<b>Strategies</b> A variety of strategies are used to check for understanding from all students during instruction.
<b>Behavioral Expectations</b> Expectations, aligned with schoolwide expectations, are posted, taught, and reinforced consistently.	<b>Vocabulary</b> Academic language and vocabulary are introduced and developed to ensure access to the content.	<b>Instructional Tools</b> Students use tools such as organizers and manipulatives to structure information and process content.	<b>Pacing</b> Students receive information in short segments with a variety of activities.	<b>Feedback</b> Timely feedback clarifies misconceptions, promotes student reflection, and stimulates growth.
<b>Relationships</b> Active instruction is observed alongside positive and respectful interactions among teachers and students.	<b>Literacy</b> Students use reading, writing, and oral language to strengthen content understanding.	<b>Rigor</b> Lessons are complex and challenging for all students.	<b>Participation</b> Teacher ensures student engagement and work completion, while fostering perseverance.	<b>Monitor &amp; Adjust</b> Teacher monitors student learning and adjusts instruction accordingly.

Problems: PD days that spark excitement but no lasting change  
A lack of structure to more teachers to proficient practice



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## The Tesseract Plan Unit 5: Lessons 13-14

### Sustaining & Strengthening *Your* PLC

14. **Monitoring & Reporting** Perspective

15. **Your Plan** Communal Planning



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## The Tesseract Plan #14: Monitoring & Reports

People don't do what you **expect**;  
they do what you **inspect**.



Keith Shore  
Telecom Executive



If it's not **monitored**,  
it's **optional**.

Brent Coley  
Coordinator/Former Principal



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## The Tesseract Plan Monitoring & Reports

Their [*admin's*] job is to be **teachers of what will get monitored**, and then to monitor it really well.




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## The Tesseract Plan Administrator PLC Checklist



- Communicate the Vision
- Vet the Documents
- Monitor the Data
- Walk the Meetings
- Focus on the Protocols
- Celebrate the Results

Problem: A lack of structure to move teachers to proficient practice



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## The Tesseract Plan The PLT Tracker

Meeting Notes													Meeting Notes																					
Aug			Sept			Oct			Nov/Dec			Jan			Feb			Mar			Apr			May										
16	23	30	6	13	20	27	4	11	18	25	8	15	29	6	10	17	24	31	7	14	21	28	6	13	20	27	10	17	24	1	8	15	22	
A Course																																		
--	--	--	--	--	--	X	X	X	--	--	X	--	X	D	X	X	X	X	X	X	X	X	X	X	X	X	X	--	--	X	X	X	X	X

Common Assessments & Evidence										
Units										
A1	A2	A3	A4	A5	A6	E6	ALL			
X	X	X	X	X	X	X	X	X	X	
10/16	1/9	2/5	3/11	4/15						



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## The Tesseract Plan #12: YOUR Plan



**Communal  
Planning**



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## The Tesseract Plan YOUR Plan

To say the least, **Strategic Planning** at Stevenson is and was at the Heart & Soul of work there.

They meet once per year (School Board and leadership team) where they Annual Revise their "**3-year plan**." This plan is based on three specific headers:



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**The Tesseract Plan**  
**Our Objectives & Success Criteria**

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 **The Importance of Leadership and a Strategic Plan**  
 in developing a Professional Learning Community

Decide on your first step in improving your Leadership & Planning at your site. 



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**The Tesseract Plan**  
**The Why of Making Math Moments**

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**High-Quality Professional Learning for Math Leaders**



**Clear Systems Designed to Last**



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**The Tesseract Plan**  
**To Someone Else's Glory**

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Dr. Sean Nank

**The change you seek will not occur on your watch.**



Steven Shadel



89% Turnover

Problem: Leadership turnover that resets progress



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