

Blended Science Implementation Plan

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Objectives:

- Our students will learn 21st Century Skills that prepare them for future careers through a Blended Learning and PBL hybrid that provides students with a more meaningful, engaging, and personalized educational program.
- Blended Science team will offer teachers an engaging, instructional method that personalizes education for all learning abilities while utilizing technology and teaching 21st century skills.

I. Creating Conditions for Success

A. Before Launching

- i. Meet with Key Figures (i.e. Academic Dean, Curriculum Coaches, Lead, and Department Chair) prior to piloting the program to align campus mission and vision with the academic goals of Blended Science.

B. Academic Goals

- i. Powerful learning experiences
- ii. Global preparedness
- iii. Excellence in communication
- iv. An informed and involved community

C. Other Goals

- i. Increase attendance and student engagement
- ii. Improve teacher evaluations

D. Supporters

- i. Superintendent, Board, Principal, Teacher Staff, Union Support, Leadership Schools/ programs, Student and family, counselors, Curriculum Team

E. Funding

- i. Device maintenance budget

II. Implement- Key to Success

A. Infrastructure-

- i. Consists of team of Teachers, Administrators, Science Curriculum Coaches, Department Leads, Technology Coach

B. Professional Development-

- i. **Target participants:** Professional development will be provided to Teachers, Administrators, Science Curriculum Coaches, Department Leads, Technology Coach, Academic Dean
- ii. **Goals:** Teachers will learn how to implement, and practice Blended Science Blended using Google Classrooms and Google Sites and meeting requirements of T-TESS evaluations.

C. Implementation Support- Technology Coach

D. Culture- Key figures will establish a culture during initial meeting and at the end of each year. Ingredients for culture include: Value, Equity, Innovation, Good habits, Care, Big question, Mastery, Collaboration, Support, Execution.

E. Communication- Curriculum team meets two times per semester and communicates/collaborates on team Google Class and Google Drive.

III. Next Steps

A. Meet with Key Figures

- i. Recruit teachers
- ii. Establish goals and plan
- iii. Review scope-and-sequence, calendar, and district curriculum.
- iv. Develop first unit and present to Key Figures.
- v. Acquire computers

IV. Plan-Key Decisions

A. Instructional Methods

- i. Instruction will be broken down into these *five* parts:
 - a. Goal Setting- Questions, Goals, Tasks
 - b. Scaffolding Lessons- Choice of lessons
 - c. Exploration- Labs, Hands-on Activities
 - d. Product- Projects, Conclusions, Debate, Write-up
 - e. Collaboration- Website Feedback, Discussions, Networking

B. Platform & Content, and Device- Google Suite, Schoology, using Chromebooks.

C. Staffing & Development- In the pilot phase of this plan, only one teacher will be using Blended Science in Chemistry or a few who volunteer. Professional Development will be given to newer teachers during the year and summer and the time will be used to develop and create a lesson bank for personalization. A curriculum team must be selected to develop curriculum. Then, more teachers will follow the following year. Eventually, a Blended Science class will be available for any Chemistry and Science class in the school

D. Impact Measurement

- i. Content Mastery

E. District assessment data

- i. Student engagement, Culture & Climate

- Walk-throughs
- Student, Parent, Teacher Surveys

F. Strategy & Timeline-3 years phasing in staff and units taught with Blended Science. The first year 4 units will be taught with 1-2 Chemistry teachers. The second year, 6 units will be taught with 3-4 Chemistry teachers. The 3rd year, teachers from any discipline will teach Blended Science will teach at least 7-8 Blended Science units..

G. Year 1: Goal- Implement 2 Blended Science units with 1-2 teachers, recruit teachers for next year, and conduct PDs and Key Figure meetings to discuss data. Compare data to see progress.

- i. **Semester 1:** Implement 2 Units, establish culture, and assess students.

a. August

- A professional development presentation will be held to discuss the project on various aspects (ie. Tradition vs Blended Science Teaching, timeline, goals, welcomed walkthroughs and guests for presentations, recruitment, strategies, etc.)
- Blended newsletter will be sent out regarding the launch of the program and invitations to visit the classrooms participating. This will help future recruitment and advocacy.
- Send email or letter home to students stating that there will be 4 Blended Science Lesson and list expectation.
- 1-2 teachers recruited to teach Blended Science.
- Meet with team plan lessons, align curriculum
- Have students take survey on learning preferences
- Teach Unit 2 as Blended Science. Students and teachers set learning goals.
- Give diagnostic assessment and record scores.

b. September-November

- Meet with BL Teacher(s) to discuss survey, Unit 2 and assessment and design lessons to adapt to findings.
- Present to Science Department. Begin recruiting Chemistry Teachers for next year.
- Determine needs from survey, set goals for Unit 3.
- Blended newsletter will be sent out

c. December

- Blended newsletter will be sent out
- Complete 2nd Blended Science lesson- Unit 3. Set learning goals.
- Mid-Dec.: Take Diagnostic and present to Admin, Lead, and Science Department Head.
- Administrators will use evaluations to discuss Blended Science progress on meeting initial goals.
- Hold PD with Science teachers to discuss data, surveys, and ideas for next unit.
- Meet with Key Figures to discuss needs for next semester. Liaison presents to CIT.
- Conduct same survey.
- Conduct round-table protocol to brainstorm new strategies.
- Compile lessons in one collaborative drive to save as a bank of lessons.
- Send newsletter home to parents, update social media, and have students make connections with community. Plan for February.
- Device maintenance

ii. Semester 2- Two more units and measure progress, build curriculum train new teachers for next year, and interview students.

a. January- February-

- Blended newsletter will be sent out
- Teachers plan for next two units and plan assessment dates. Assign them in March.
- Complete 3rd B.S. lesson. Set learning goals.
- Give update at Faculty Meeting and recruit more teachers for following year.

b. March-April

- Blended newsletter will be sent out
- Give District Assessment, compare to traditional students of same demographics.
- Have parent meeting night to discuss progress and compile input. Discuss data and culture.

c. May-June

- Blended newsletter will be sent out
- Send parents newsletter, have awards
- Conduct EOY survey
- Take final assessment. Compare to the beginning of the year and to traditional students. Present to Key Figures, all science department, and District Curriculum. At faculty meeting, experienced teachers will present their work and recruit any teachers from Science willing to try it.
- Computer maintenance

H. Year 2: Goal- Two more units and measure progress, build curriculum train new teachers for next year, and interview students.

i. Semester 1

a. August

- Blended newsletter will be sent out
- Device maintenance
- Pilot teachers present to faculty and meet with new teachers to train them.
- Use last year's survey to make changes.
- Test to use data to make changes.
- Same as first year, but 4 teachers will meet.
- Teach Unit 2. (Make sure 50% of units are B.S.)

b. September-November

- Blended newsletter will be sent out

- Meet with BS Teacher(s) to discuss survey, Unit 2 and assessment and design lessons to adapt to findings.
- Present to Science Department. Begin recruiting Science Teachers for next year.
- Determine needs from survey, set goals for Unit 3
- Complete 2nd Blended Science lesson- Unit 3. Set learning goals.

c. December

- Blended newsletter will be sent out
- Mid-Dec.: Take Diagnostic and present to Admin, Lead, and Science Department Head.
- Administrators will use evaluations to discuss Blended Science progress on meeting initial goals.
- Hold PD with Science teachers to discuss data, surveys, and ideas for next unit.
- Meet with Key Figures to discuss needs for next semester. Liaison presents to CIT.
- Conduct same survey
- Conduct round-table protocol to brainstorm new strategies.
- Compile lessons in one collaborative drive to save as a bank of lessons.
- Send newsletter home to parents, update social media, and have students make connections with community. Plan for February.
- Device maintenance

ii. Semester 2

a. January- February-

- Blended newsletter will be sent out
- Teachers plan for next two units and plan assessment dates. Assign them in March.
- Complete 50% of the Chemistry units by the end of the year. Set learning goals.
- Give update at Faculty Meeting and recruit more teachers for following year.

b. March-April

- Blended newsletter will be sent out
- Give District Assessment, compare to traditional students of same demographics.
- Have parent meeting night to discuss progress and compile input. Discuss data and culture.

c. May-June

- Send parents newsletter, have awards
- Blended newsletter will be sent out
- Conduct EOY survey
- Take final assessment. Compare to the beginning of the year and to traditional students. Present to Key Figures, all science department, and District Curriculum. At faculty meeting, experienced teachers will present their work and recruit any teachers from Science willing to try.
- Meet after the year has ended to compile lessons.
- Device maintenance

- I. Year 3: Goal:** 10 units will be completed at the end of this year. Findings are presented to District and propose for district-wide adoption. Key Figures meet to discuss data starting with year 1.

i. Semester 1- Year 3: 3-4 Teacher will implement B.S. 50% of units will be B.S.

a. August

- Blended newsletter will be sent out
- Pilot teachers present to faculty and have a PD specifically for Science department.
- Use last year's survey to make changes.
- Test to use data to make changes.

- Same as first year, but any B.S. teachers will meet.
- Unit 2 and all units after will be Blended Science- At least 10 Units total.
- Device maintenance

b. September-November

- Blended newsletter will be sent out
- Meet with all B.S Teacher(s) to discuss survey, Unit 2 and assessment to design lessons to adapt to findings.
- Present to Science Department. Begin recruiting Science Teachers for next year and expand to District. Meet with District Curriculum Coordinator.
- Determine needs from survey, set goals for future units.

c. December

- Blended newsletter will be sent out
- Mid-Dec.: Take Diagnostic and present to Admin, Lead, and Science Department Head.
- Administrators will use evaluations to discuss Blended Science progress on meeting initial goals.
- Hold PD with Science teachers to discuss data, surveys, and ideas for next unit.
- Meet with Key Figures to discuss needs for next semester. Liaison presents to CIT.
- Conduct same survey
- Conduct round-table protocol to brainstorm new strategies.
- Compile lessons in one collaborative drive to save as a bank of lessons.
- Send newsletter home to parents, update social media, and have students make connections with community. Plan for February.
- All units, with the exception of 2 will be B.S.
- Device maintenance

ii. Semester 2

a. January- February-

- Blended newsletter will be sent out
- Teachers plan for next two units and plan assessment dates. Assign them in March. Incorporate career goals in lessons.
- Give update at Faculty Meeting and recruit more teachers for following year.
- Device maintenance

b. March-April

- Blended newsletter will be sent out

- Give District Assessment, compare to traditional students of same demographics.
- Have parent meeting night to discuss progress and compile input. Discuss data and culture.

c. May-June

- Blended newsletter will be sent out
- Send parents newsletter, have awards
- Conduct EOY survey
- Take final assessment. Compare to the beginning of the year and to traditional students. Present to Key Figures, all science department, and District Curriculum. At faculty meeting, experienced teachers will present their work and recruit any teachers from Science willing to try.
- Meet after the year has ended to compile lessons.
- Device maintenance