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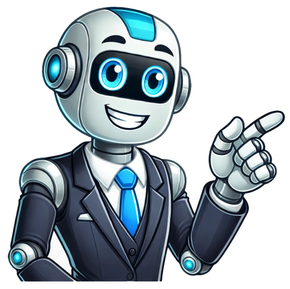

 Cross-curricular teaching makes learning more relevant by connecting different subjects around a common theme.The Common Core standards encourage students to focus more on non-fiction for cross-curricular learning.Planning is key to successful cross-curricular teaching, involving integration of objectives from different subjects. Curriculum connections make learning more meaningful for students. When students see the connections between individual subject areas, the material becomes more relevant. When these kinds of connections are part of planned instruction for a lesson or a unit, they are called cross-curricular, or interdisciplinary, instruction. Cross-curricular instruction is defined as: "...a conscious effort to apply knowledge, principles, and/or values to more than one academic discipline simultaneously. The disciplines may be related through a central theme, issue, problem, process, topic, or experience." (Jacobs, 1989). The design of the Common Core State Standards (CCSS) in English Language Arts (ELA) at the secondary level is organized to allow for cross-curricular instruction. The literacy standards for the DLA discipline are similar to the literacy standards for the disciplines of history/social studies and science/ technical subject areas that begin in grade six. In conjunction with the literacy standards for other disciplines, the CCSS suggest that students, starting in sixth grade, read more nonfiction than fiction. By grade eight, the ratio of literary fiction to informational texts (nonfiction) is 45 to 55. By grade 12, the ratio of literary fiction to informational texts drops to 30 to 70. The rationale for lowering the percent of literary fiction is explained in the Key Design Considerations page of the CCCS, which refers to: "...the need for college and career ready students to be proficient in reading complex informational text independently in a variety of content areas." Therefore, the CCSS advocates that students in grades eight through 12 must increase reading practice skills across all disciplines. Centering student reading in a cross-curricular curriculum around a particular topic (content area-informational) or theme (literary) can help make materials more meaningful or relevant.   Examples of cross-curricular or interdisciplinary teaching can be found in STEM (science, technology, engineering, and math) learning and the more recently coined STEAM (science, technology, engineering, arts, and math) learning. The organization of these subject areas under one collective effort represents a recent trend toward cross-curricular integration in education. The cross-curricular investigations and assignments that include both humanities (such as ELA, social studies, and arts) and STEM subjects highlight how educators recognize the importance of creativity and collaboration, both skills that are increasingly necessary for modern employment. As with all curriculum, planning is critical to cross-curricular instruction. Curriculum writers must first consider the objectives of each content area or discipline: Selecting benchmarks or standards from the subject areas to be integrated; Identifying cross-curricular questions that can be asked about the benchmarks that have been selected; Identifying a product or performance assessment that incorporates the benchmarks. In addition, teachers need to create day-to-day lesson plans that meet the needs of the subject areas being taught, ensuring accurate information. There are four ways that cross-curriculum units can be designed: parallel integration, infusion integration, multidisciplinary integration, and transdisciplinary integration. A description of each cross-curricular approach with examples is listed below. In this situation, teachers from different subject areas focus on the same theme with varying assignments. An example involves integrating the curriculum between American literature and American history courses. For example, an English teacher might teach "The Crucible" by Arthur Miller while an American history teacher teaches about the Salem witch trials. By combining the two lessons, students can see how historical events can shape future drama and literature. This type of instruction is beneficial because teachers can maintain a high degree of control over their daily lesson plans. The only real coordination involves the timing of the material. However, issues can arise when unexpected interruptions cause one of the classes to fall behind. This type of integration occurs when a teacher infuses other subjects into daily lessons. For example, a science teacher might discuss the Manhattan Project, the atomic bomb, and the end of World War II when teaching about splitting the atom and atomic energy in a science class. No longer would a discussion about splitting atoms be purely theoretical. Instead, students can learn the real-world consequences of atomic warfare. The benefit of this type of curriculum integration is that the subject area teacher maintains complete control over the material taught. There is no coordination with other teachers and therefore no fear of unexpected interruptions. Further, the integrated material specifically relates to the information being taught. Multidisciplinary curriculum integration occurs when there are two or more teachers of different subject areas who agree to address the same theme with a common project. A great example of this is a class-wide project like a "Model Legislature" where students write bills, debate them, and then gather together to act as a sitting legislature deciding on all the bills that got through the individual committees. Both the American Government and English teachers have to be very involved in this sort of project to make it work well. This type of integration requires a high degree of teacher commitment, which works great when there is high enthusiasm for the project. However, it does not work as well when teachers have little desire to be involved. This is the most integrated of all types of curricular integration. It also requires the most planning and cooperation between teachers. In this scenario, two or more teachers share a common theme that they present to the students in an integrated fashion. Classes are joined together. The teachers write shared lesson plans and team teach all the lessons, weaving the subject areas together. This will only work well when all teachers involved are committed to the project and work well together. An example of this would be an English and social studies teacher jointly teaching a unit on the Middle Ages. Instead of having students learn in two separate classes, they combine forces to ensure that the needs of both curriculum areas are met. When teachers collaborate on projects across subjects, they can drive engagement in all of their classes. At Hood River Middle School, school leaders create time for teachers to collaborate within and across content areas on projects. This has many benefits, including:Teachers can leverage resources, ideas, and learning opportunities.Students make connections between subjects.It communicates a common message across classrooms, showing students that their teachers are aware of what they're learning in other classes.It keeps teachers on the same page in terms of not assigning too much homework on any given night or scheduling tests on the same day."When teachers talk to each other, teachers learn from each other," says Brent Emmons, Hood River Middle School's principal. “There are so many great ideas that our teachers come up with that engage kids and get kids to think outside the box. I'm just amazed at what we can accomplish when we work together.”How It's DoneFor PrincipalsStep 1: Schedule time for collaborative planning."You have to provide the structure for collaboration; that's essential,” states Emmons. “You can't have collaboration if teachers don't have time to collaborate."Hood River’s grade-level teachers benefit from:Daily common preparation time and lunchesA required weekly meeting for collaborationThe daily prep time creates a scheduled opportunity for informal collaboration, but given teachers' workload, that time isn't always used for collaboration. The weekly required meeting ensures that they collaborate."In the education world, there isn't a lot of attention that is traditionally paid to the master schedule," says Emmons. “The schedule is the bones of a school, and that's what we hang curriculum after; that's what you actually provide for a culture of a school. By tweaking a master schedule, you can provide opportunities for collaboration.”Tip for Principals: As a principal, you need to encourage and recognize your teachers for collaborating. To create an atmosphere where your teachers feel encouraged to try new things -- in addition to time -- it's also important to provide them with a budget, advises Emmons.Teachers at Hood River come together on more robust cross-curricular activities rooted in their community, ranging from field trips to the Columbia River Gorge to launching a weather balloon into the Earth's atmosphere. Bringing these projects to life requires funding for resources. Emmons created an internal grant funded by parent and community donations to support teacher projects and collaboration -- the Hood River Middle School (HRMS) Building Grant."I use parent fundraising and donations to fund classroom grants from teachers,” explains Emmons. “I believe it encourages innovation and allows families to see the direct benefit to student learning that donations and fundraising provides for the kids of our community."For teachers to apply, the funding needs to benefit the kids directly and cannot go toward staff development. The project also needs to be aligned with Common Core. Teams can request up to $1,000, and individuals can request up to $400. For 2015-2016, the school will distribute $4,000 through this grant.To apply, teachers fill out the HRMS Building Grant application, including their name or team member names, the subjects and grades that will be taught, the title of their project, and the project description and budget. They also answer the following statements and questions:Describe how the funds will be spent.Describe the project timeline.Clearly state the learning objectives.Explain what the project will accomplish and how it will be evaluated.Discuss any anticipated obstacles.How many students will benefit from the short- and long-term of this project?Their review application committee consists of Principal Emmons, parent volunteers, and Vice Principal Ocean Kuykendall.For TeachersStep 1: Start by finding one collaborative partner.Adam Smith, a Hood River sixth-grade math, science, and language arts teacher, came across a video online called "Hello Kitty Goes to Space," showing a seventh-grade student launching a high-altitude weather balloon into the atmosphere and capturing data while in flight. After seeing that video, he knew that he wanted to adapt this project for his classroom and make it a collaborative effort across content areas. He reached out to sixth-grade engineering teacher, Rebekah Rottenberg, who was just as excited to bring this project to life."Having that one other team member that was fired up about collaborating created enough inertia to get this project started," says Smith.Whether you're planning a large or small collaborative project, you'll need funding and resources. Once Smith and Rottenberg partnered together, they created a budget and submitted a Hood River Middle School Building Grant application. They received funding for a flight computer, the balloon, helium, and a few GoPros to capture the footage of the balloon in flight."We had a clear idea in mind of what we wanted to do upon retrieving our weather balloon," recalls Smith. Reinforcing sixth-grade topics like watershed, atmospheric science, engineering design, and scientific inquiry were part of their plan. "It was great to bring the topic to the rest of the team to find out how we could connect it to language arts and other content areas."During one of their grade-level meetings, the language arts teachers brainstormed a way to connect the journey of the balloon to both creative and scientific writing by having their students write about that single experience from different perspectives."The beauty of the weather balloon project is that it's something captivating that provides many points of entry,” says Smith, “whether you're a student in an engineering class working on how to build a structure that's going to survive a fall from several thousand meters, or if you're in a science classroom trying to ask good scientific inquiry questions that could be tested, or if you're in language arts and you want to write a creative piece about what the balloon's journey might be."Collaborative projects aren't planned in the span of a single meeting. They evolve over time. Laura Haspela, a Hood River seventh-grade science teacher, and her colleague Anne Marie Untalan, who teaches seventh-grade science and math, brainstormed over the summer about a grade-wide field trip to Fossil, Oregon, where their students could dig -- knowing that archeology interested their students -- and focus on the geology of that area.When they shared this idea with their grade-level prep team, they realized it was unfeasible. "It ended up that we had a limited budget," says Untalan. They brainstormed together, and instead decided to go to the Columbia River Gorge.They developed their curriculum over time. In their first meeting, they realized that they could connect the Gorge to reading class by studying local legends. At their following meeting, both language arts teachers expanded on the idea of legends, deciding that kids could write their own legend. "That brought in social studies talking about how people back in the olden days -- before science explained why these things existed -- made up these legends to explain why things existed," says Angie Adkins, a Hood River seventh-grade language arts teacher. In language arts, they later came up with the idea for their students to present their legends through skits, storybooks, comic strips, puppet shows, and iMovies. Their curriculum continued to develop over time as they shared ideas during their grade-level meetings.Time in between classes is great for quick, informal conversations. While passing a colleague in the hallway, Smith will often say, "I have this great thing I want to try today. If it works out for me, I'll let you know. You should try it out tomorrow, and then we can see where we can go from there.'"These on-the-fly, organic discussions are great for encouraging flexibility and adapting practices easily and quickly, but with a lack of time, it's not always possible. To ensure grade-level collaboration, grade-level meetings are necessary. Those meetings need to be scheduled, and that time needs to be protected."Because of that common prep time, it allows every team to figure out how to make the curriculum more real for students," says Untalan. "Those collaborative conversations were starting on the bus ride back home after the Columbia River Gorge field trip because the kids are on board. They're excited; they're enthusiastic; and they were commenting about all they had learned."540 | Public, Rural$11280 District • $10515 State44%Data is from the 2014-2015 academic year. Cross-curricular teaching makes learning more relevant by connecting different subjects around a common theme.The Common Core standards encourage students to focus more on non-fiction for cross-curricular learning.Planning is key to successful cross-curricular teaching, involving integration of objectives from different subjects. 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Cross curricular lesson plan examples can make this vision a reality, engaging students in ways that traditional teaching methods often miss. By connecting different disciplines, you not only enhance understanding but also spark curiosity and creativity.Cross-curricular lesson plans integrate multiple subjects into a single teaching framework. These plans encourage connections between disciplines, fostering deeper understanding. By blending subjects like math and science, you create relevant learning experiences that resonate with students.Examples of cross-curricular lesson plans include:STEM Projects: Students design bridges using principles from physics and mathematics.Literature and History: Explore historical texts to analyze characters’ decisions within their societal context.Art and Geography: Create maps showcasing local geography while incorporating artistic techniques.Engaging students in these activities enhances critical thinking skills. Through this approach, learners grasp concepts more effectively by seeing their practical applications.You might ask how to implement these lessons. Start by identifying common themes across subjects. Then, develop activities that allow for collaboration among different disciplines. This strategy not only makes learning fun but also prepares students for real-world problem-solving scenarios.Incorporating technology can further enrich cross-curricular lessons. For instance, using digital tools allows students to research topics across various fields effortlessly. It creates an interactive environment where knowledge thrives through exploration.Consider the benefits of flexible assessment methods as well. Assessing student performance through projects or presentations offers insights into their mastery of integrated content areas.Cross-curricular lesson plans offer numerous advantages for both teachers and students. They foster a more integrated learning experience, bridging gaps between subjects and enhancing overall comprehension.Engaging students occurs naturally when lessons blend various subjects. For example, a project on climate change can involve science (understanding ecosystems), geography (analyzing affected regions), and art (creating awareness posters). This approach captures student interest by showing real-world applications.Additionally, incorporating technology into these lessons—like using digital presentations or collaborative online tools—makes learning interactive. Students often participate more actively when they see relevance in their studies.Critical thinking skills develop effectively through cross-curricular activities. When students tackle problems that require input from multiple disciplines, they learn to analyze information from different perspectives. For instance, a history lesson combined with literature might have students evaluate historical narratives while discussing character motivations.Moreover, group projects encourage collaboration. Working together on tasks like research presentations helps them articulate ideas clearly and consider peers’ viewpoints. This combination of skills fosters independent thought and enhances problem-solving abilities across various contexts.Cross-curricular lesson plans effectively link various subjects, enriching students’ learning experiences. Here are examples that demonstrate how integration can enhance understanding and engagement.One effective approach combines science and math through a hands-on project. For instance, you might conduct an experiment measuring the growth of plants under different light conditions. Students can use mathematical skills to analyze data, create graphs, and calculate averages. This method not only reinforces scientific concepts but also strengthens their mathematical abilities in a practical context.A powerful example merges language arts with social studies by analyzing historical texts. You could have students read documents from significant events like the Civil Rights Movement. Afterward, they can write reflective essays or create presentations on the impact of those events. This activity encourages critical thinking while enhancing reading comprehension and writing skills within a historical framework.Implementing cross-curricular lesson plans requires careful planning and execution. Here are some effective strategies to consider:Identify common themes across subjects. Focus on topics that allow integration, like environmental issues or cultural studies. This approach fosters a deeper understanding.Utilize project-based learning to engage students actively. Projects can span multiple disciplines, such as creating a documentary that combines research from history, technology, and language arts.Incorporate technology tools for collaboration. Using platforms like Google Classroom or Padlet enables students to work together on projects while accessing diverse resources.Design assessments that reflect integrated learning objectives. Instead of traditional tests, consider using presentations or portfolio submissions that showcase knowledge across various subjects.Encourage flexible grouping within the classroom. Mix students with different strengths in collaborative groups to promote peer learning and diverse perspectives.Integrate creative methods, such as art or music, into lessons from other subjects. For instance, students might write a song about scientific concepts they’re studying, blending creativity with academic rigor.By applying these strategies thoughtfully, you enhance student engagement and foster a richer educational experience through cross-curricular lesson plans. Cross-curricular instruction is a great way for teachers to incorporate different disciplines in education into one. It can also be referred to as Interdisciplinary Learning. The different school subjects are just a small puzzle piece of the larger puzzle. They can all go together as one to make up the big puzzle in education. For instance, what students learn in math can be applied to English, social studies, and science in some capacity, and if not all the subjects, at least some. In order to implement this type of instruction effectively, teachers need to plan and collaborate steadily. Therefore, the overall quality of lessons can be chosen carefully and modified as needed. Cross-curricular planning fosters a great deal of equal responsibility. Benefits of Cross-Curricular Instruction As mentioned, teachers are brought together to plan and brainstorm with cross-curricular instruction. Through planning together, teachers and staff members can develop a deeper appreciation of what they each bring to the table as far as expertise and experiences. Additionally, through conversing and establishing one another’s expertise and skills, teachers are more likely to create richer lessons for high-quality instruction across the board. Not only does this model provide collaboration among teachers, but it does among students as well. Positive social interactions can lead to deeper conversations and the acquisition of new knowledge. Additionally, the idea of teamwork creates opportunities for new discoveries and ideas. Through maintaining positive mindsets and open-mindedness, students can learn to be flexible. As students discover that learning is an ongoing process, they may begin to use what they have already learned to navigate the new difficulties of what they are currently learning. They will come to realize that everything can relate. Thus, cross-curricular instruction offers many great advantages to students. It fosters teamwork, new discoveries, more motivation, and more knowledge of the learning process. A greater appreciation of the learning process leads students to become life-long learners. For any educator, this is most certainly the goal in mind. I, myself, am a life-long learner. I have always tried to instill this in my students from the very beginning of the school year. Back when I was a student, it took me a while to see the connections between subject areas to truly say I have learned something new. I then began to feel more comfortable applying my learning to new situations and experiences. Different branches of learning came together, and I was able to see the true importance of the learning process and what it meant for me as a learner. Strategies for Planning Integrated Curriculum There are many strategies that can be employed with integrated curriculum. One strategy is for teachers to select a theme for students to learn around. This allows for students to have the opportunity to seek out information they already know and work to learn more, thus leading them to make connections among their learning and new acquisition of knowledge. Another strategy is for teachers to choose a key concept to guide instruction. Once they establish a theme that is fitting, they can choose tasks within a key concept that encourage students to seek out information, think critically, solve problems, research, and make connections among their learning. This key concept should be directly about the theme but also allow students to transfer what they explore and learn to their own lives. Applying knowledge is an integral part of the learning process, and in this stage, it needs to be a main goal set to be accomplished. Once themes are determined, the goal is to select tasks that encourage students to investigate, wonder, problem-solve, and ask questions. Key concepts for a theme should provide a clear focus for all instruction and learning. The key concept guides all activities and lessons. It is expected that, by the end of the theme, all students will begin to internalize, build upon, and transfer this key concept to their own lives. Next, teachers need to identify skills and strategies that need to be taught. Rather than considering a product or result of a lesson, this strategy of identifying skills and strategies that students need allows teachers to plan accordingly to reach mastery of the key concepts. It is certainly not to discount the importance of products and assessments, as they are equally as important. However, teachers can more clearly and concisely plan activities and lessons that will introduce, teach, and enhance key concepts to students. Through this, it creates further opportunities for students to think, navigate, and explore. Then, as the result, they can make connections as a part of cross-curricular instruction. To go along with the planning aspect of cross-curricular instruction, another strategy that can be utilized by teachers is to ensure that they are choosing appropriate resources. They should take into consideration the scope of planning, templates, material selection, and more. Teachers need to be reflective of their practice. Teaching is a profession that continuously opens opportunities to identify ways to improve and grow. Teachers need to monitor what students are achieving and gaining and evaluate progress. Through doing so, they can establish what the next steps are in their planning and processes. Of course, if they notice the methods are not working among students, they need to make the necessary modifications, back track, and make another attempt towards student progress and mastery. References “Integrated Instruction”. March 2015. OEL Resource. *Updated February, 2021 Teachers: there’s no one right way to plan a cross-curricular unit. You can plan in teams or on your own, and use any planning template under the sun. That said, all truly incredible cross-curricular units have 6 critical components in common. Read on for the recipe for a kickass cross-curricular unit plan! What are you waiting for? This FREE guide to becoming more student-centered in your teaching practices could be in your inbox in minutes! Simply put, our brains – and the brains of the brilliant learners in front of us each day – do not contain siloes. There’s not a strictly math part or a spelling-only section. Our brains are integrated, constantly seeking to make connections! In short, our brains are cross-curricular. Cross-curricular teaching has been proven time and time again to be integral to multilingual learners’ success in the classroom. Comprehensive units provide English Language Learners the chance to go deep on a subject and focus on core content. Similarly, cross-curricular teaching is paramount to inquiry-based learning. This student-centered teaching method invites the students themselves to direct a (cross-curricular) study. As a bilingual teacher at an inquiry-based, International Baccalaureate School, cross-curricular instruction is the name of my game. I’ll never stop singing about its incredible value! When planning a cross-curricular unit, essential questions and essential understandings are the first key components. Let’s break down what they each are! Essential questions are thought-provoking inquiries that delve deep into the heart of the topic we’re teaching. They encourage critical thinking, curiosity, and exploration. These questions don’t have one right answer but spark discussions and investigations, fostering a love for learning. In contrast, essential understandings are the fundamental concepts or big ideas we want our students to grasp by the end of the unit. They provide the overarching purpose for our lessons, helping students see the significance of what they’re learning. By framing our cross-curricular units with these questions and understandings, we create a roadmap for both ourselves and our students. This ensures that our teaching is purposeful, engaging, and meaningful. Right alongside essential questions and understandings come the integral component of standards. But here’s the thing: we need to choose the right standards to make a unit truly cross-curricular. Including multiple kinds of standards creates a comprehensive and well-rounded educational experience for their students. Beyond only subject-specific standards, such as the Common Core Standards for Math or Language Arts, it’s critical to include other standards like social-emotional learning, English Language Aquisition, technology, or even cultural competency. I personally love to align with Teaching for Justice’s Social Justice Standards and the WIDA Can-Do Descriptors when planning cross-curricular units for my bilingual second graders. This holistic approach ensures that students not only acquire academic knowledge but also develop essential life skills, empathy, and an awareness of the diverse world around them. This approach also fosters creativity and critical thinking, as students connect cross-curricularly, making learning more engaging and relevant. Once a teacher has essential questions & standards in place, the next step is to create a plan for assessment. It serves as a roadmap to ensure that our instructional goals align with the desired outcomes. Assessment planning helps us determine what we want students to learn, how we’ll measure their progress, and what adjustments may be needed along the way. This proactive approach allows us to tailor our teaching strategies, differentiate instruction, and provide timely feedback to students. It’s not just about testing; it’s about understanding our students’ learning journey and ensuring that they are achieving the intended objectives. Assessments are valuable tools for both educators and students, enabling us to gauge mastery, address learning gaps, and celebrate achievements, making the entire teaching and learning process more effective and meaningful. The fourth component of a stellar cross-curricular unit plan is lesson-level objectives. These objectives, of course, come from the selected standards. Teachers need to take the standards and break them down into bite-sized lesson goals: something I call “unpacking the standards.” By deconstructing broader standards into smaller, achievable objectives, we create a clear path for both ourselves and our young learners. This approach allows us to scaffold instruction, ensuring that students grasp the foundational concepts before moving on to more complex ones. It transforms abstract goals into tangible steps that make the learning journey more comprehensible and attainable. Our fifth cross-curricular unit planning component is high-quality texts. I am preaching to the choir here, but the texts we choose serve as the cornerstone of our students’ learning experience, shaping their understanding and appreciation of various subjects. High-quality texts engage, inspire, and challenge young minds. They introduce diverse perspectives, encourage critical thinking, and promote a love for reading. These texts also provide rich opportunities for language development and vocabulary acquisition. By incorporating texts of high literary and informational value into our units, we not only enhance our students’ comprehension but also instill a lifelong passion for learning. Quality texts are windows to the world, fostering curiosity, empathy, and cultural awareness, making them an essential ingredient in effective teaching and learning. For some of my favorite texts, check out my book store here! The final element of a truly kick ass cross-curricular unit plan is intriguing learning provocations. We as elementary teachers have a fantastic opportunity to ignite curiosity and enthusiasm in our students through surprising, curiosity-inducting learning provocations. These provocations can take various forms, such as hands-on activities, intriguing questions, real-world challenges, or engaging stories. By selecting captivating and relevant provocations, we can pique students’ interest, making them eager to explore the unit’s content or to follow a new path. These transformative experiences set the tone for the entire unit, sparking curiosity and motivating students to delve deeper into the subject matter. Engaging provocations not only make learning more enjoyable but also lay the foundation for active, student-driven inquiry, which is essential for fostering a love for learning and developing critical thinking skills. How does cross-curricular teaching impact English Language Learners? Read here! Want to take a peek into the outline of a cross-curricular unit? Check it out here! Wondering how to unpack a standard? Read the 5 easy steps here! Cross-curricular teaching makes learning more relevant by connecting different subjects around a common theme.The Common Core standards encourage students to focus more on non-fiction for cross-curricular learning.Planning is key to successful cross-curricular teaching, involving integration of objectives from different subjects. Curriculum connections make learning more meaningful for students. When students see the connections between individual subject areas, the material becomes more relevant. When these kinds of connections are part of planned instruction for a lesson or a unit, they are called cross-curricular, or interdisciplinary, instruction. Cross-curricular instruction is defined as: "...a conscious effort to apply knowledge, principles, and/or values to more than one academic discipline simultaneously. The disciplines may be related through a central theme, issue, problem, process, topic, or experience." (Jacobs, 1989). 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Therefore, the CCSS advocates that students in grades eight through 12 must increase reading practice skills across all disciplines. Centering student reading in a cross-curricular curriculum around a particular topic (content area-informational) or theme (literary) can help make materials more meaningful or relevant.   Examples of cross-curricular or interdisciplinary teaching can be found in STEM (science, technology, engineering, and math) learning and the more recently coined STEAM (science, technology, engineering, arts, and math) learning. The organization of these subject areas under one collective effort represents a recent trend toward cross-curricular integration in education. The cross-curricular investigations and assignments that include both humanities (such as ELA, social studies, and arts) and STEM subjects highlight how educators recognize the importance of creativity and collaboration, both skills that are increasingly necessary for modern employment. As with all curriculum, planning is critical to cross-curricular instruction. Curriculum writers must first consider the objectives of each content area or discipline: Selecting benchmarks or standards from the subject areas to be integrated; Identifying cross-curricular questions that can be asked about the benchmarks that have been selected; Identifying a product or performance assessment that incorporates the benchmarks. In addition, teachers need to create day-to-day lesson plans that meet the needs of the subject areas being taught, ensuring accurate information. There are four ways that cross-curriculum units can be designed: parallel integration, infusion integration, multidisciplinary integration, and transdisciplinary integration. A description of each cross-curricular approach with examples is listed below. In this situation, teachers from different subject areas focus on the same theme with varying assignments. An example involves integrating the curriculum between American literature and American history courses. For example, an English teacher might teach "The Crucible" by Arthur Miller while an American history teacher teaches about the Salem witch trials. By combining the two lessons, students can see how historical events can shape future drama and literature. This type of instruction is beneficial because teachers can maintain a high degree of control over their daily lesson plans. The only real coordination involves the timing of the material. However, issues can arise when unexpected interruptions cause one of the classes to fall behind. This type of integration occurs when a teacher infuses other subjects into daily lessons. For example, a science teacher might discuss the Manhattan Project, the atomic bomb, and the end of World War II when teaching about splitting the atom and atomic energy in a science class. No longer would a discussion about splitting atoms be purely theoretical. Instead, students can learn the real-world consequences of atomic warfare. The benefit of this type of curriculum integration is that the subject area teacher maintains complete control over the material taught. There is no coordination with other teachers and therefore no fear of unexpected interruptions. Further, the integrated material specifically relates to the information being taught. Multidisciplinary curriculum integration occurs when there are two or more teachers of different subject areas who agree to address the same theme with a common project. A great example of this is a class-wide project like a "Model Legislature" where students write bills, debate them, and then gather together to act as a sitting legislature deciding on all the bills that got through the individual committees. Both the American Government and English teachers have to be very involved in this sort of project to make it work well. This type of integration requires a high degree of teacher commitment, which works great when there is high enthusiasm for the project. However, it does not work as well when teachers have little desire to be involved. This is the most integrated of all types of curricular integration. It also requires the most planning and cooperation between teachers. In this scenario, two or more teachers share a common theme that they present to the students in an integrated fashion. Classes are joined together. The teachers write shared lesson plans and team teach all the lessons, weaving the subject areas together. This will only work well when all teachers involved are committed to the project and work well together. An example of this would be an English and social studies teacher jointly teaching a unit on the Middle Ages. Instead of having students learn in two separate classes, they combine forces to ensure that the needs of both curriculum areas are met. Table of Contents When you’re tasked with the challenge of preparing lessons, integrating multiple subjects offers a dynamic and engaging approach to education. Cross-curricular integration is a teaching strategy that blends components from different subjects into a cohesive learning experience. This method enriches students’ educational journeys by forging meaningful connections between disciplines, which can lead to a deeper understanding of the content and the development of various skills. Embracing cross-curricular strategies in your lesson planning not only diversifies learning but also enables students to apply knowledge in real-world contexts. It pushes beyond the boundaries of traditional classroom teaching, highlighting the interconnectivity of knowledge and encouraging critical thinking. As Michelle Connolly, a respected educational consultant with over a decade and a half of experience in the classroom, aptly puts it, “Integrating multiple subjects within a single lesson plan not only enriches learning but simulates the interconnected nature of the real world, offering a more profound educational experience.” When planning lessons, the foundational steps involve understanding the educational aims and making meaningful curriculum connections. These are the cornerstones of effective teaching strategies. You must start by defining clear learning objectives. These objectives should align with educational standards such as the Common Core, and they establish what students should know and be able to do by the end of the lesson. Align your aims with the skills you wish to develop in your students, ensuring these are measurable and attainable within the timeframe of the lesson. Making curriculum connections involves integrating various subject areas to enhance learning. You should map out connections that make your content relevant to other areas of learning. This not only deepens understanding but also demonstrates the practical application of concepts. For instance, a lesson on measurement in Maths might be linked to a Design and Technology project, enriching the learning experience and making the content more cohesive. When planning lessons with cross-curricular integration, it is essential to employ methods that unite different subject areas effectively, sparking student engagement and deepening their understanding. You can start by identifying common themes or skills across subjects and designing interdisciplinary activities that blend these elements. For instance, you may integrate maths with science by analysing data patterns within ecological studies, or fuse history with English through the exploration of historical texts. Michelle Connolly, a leading educational consultant, asserts, “Interdisciplinary strategies enrich learning by connecting dots between disciplines, making the content more relevant.” Consolidating teacher efforts involves thorough planning and communication. Teachers across different specialities should meet to coordinate their syllabi, ensuring concepts are introduced in a unified manner. This approach helps to reinforce learning as students encounter similar concepts across various classes, strengthening their grasp of the subject matter. Michelle Connolly highlights, “By working together, teachers can create a cohesive learning journey for their students.” Cooperative collaboration among students is also vital for cross-curricular success. Through group work, students bring diverse skills and insights, mimicking real-world problem-solving scenarios. You might organise workshops where groups tackle multifaceted projects, requiring them to apply knowledge from different subjects. Michelle Connolly notes that “Collaboration not only mirrors real-life challenges but also fosters essential social skills.” With these methods, you’ll facilitate a dynamic learning environment that mirrors the interconnected world around us. By linking subjects in your lessons, you’re preparing your students for a lifetime of integrated thinking. To effectively integrate cross-curricular strategies into your lesson planning, it’s crucial to consider methods that foster innovation and thorough investigation within various themes. These strategies enable learners to connect concepts across different disciplines, making learning more meaningful and cohesive. Project-Based Learning (PBL) is an engaging strategy that centres around students working on a project over an extended period. This approach allows you to incorporate multiple subjects around a single theme. For instance, a project on environmental science can include: Mathematics: Calculating carbon footprints Science: Understanding ecosystems Art: Creating awareness posters Language: Writing persuasive texts on conservation Through PBL, your students will develop a range of skills, such as critical thinking and problem-solving. As Michelle Connolly, a respected educational consultant, states, “Project-based learning not only supports academic development but also fosters a sense of responsibility and teamwork.” Thematic learning involves creating units around a specific theme, allowing students to explore it from various angles. For example: Theme: Exploration of Space Science: Studying celestial bodies History: Learning about the space race Technology: Examining innovations in space travel This method promotes deeper understanding as students make connections across curricula, nurturing their curiosity and investigative skills. Michelle Connolly recommends thematic learning as it “encourages students to make real-world connections, thus enhancing their engagement and retention of knowledge.” Developing Content Knowledge When planning lessons for cross-curricular integration, it’s vital to intertwine subjects in a manner that enhances content knowledge. Adopting an integrated approach to teaching can foster an appreciation for how different subjects relate to one another. In the realm of language arts and literature, the fusion of fiction and nonfiction can enrich your students’ understanding. For instance, while exploring a novel in English, consider incorporating biographical articles or historical accounts that provide the real-world context for the setting or themes of the fiction work. Michelle Connolly says, “Linking novels to historical events deepens students’ engagement with the text, allowing them to explore the era and its impact on characters.” Meanwhile, integrating STEM subjects—science, technology, engineering, and math—with history can broaden students’ comprehension of historical developments and their lasting impact on modern society. Explain how mathematical concepts were vital in ancient engineering projects or how scientific advancements shaped historical events. According to Michelle Connolly, “Showing how the Pythagorean theorem was used in the building of ancient structures makes math relevant and exciting.” Designing effective cross-curricular lessons involves careful consideration of learning outcomes and thorough planning of resources. Tailor your lesson plans to not only integrate subjects smoothly but also to track progress and measure success effectively. In cross-curricular instruction, the objectives should be clear and achievable, blending skills and knowledge from different subjects. You want to ensure that your students are able to apply what they’re learning in real-world contexts. For example, a lesson combining mathematics and physical education might have students calculating their heart rates to learn about health, numbers, and scientific measurement. Example of Clear Objective for a Science and Maths Integrated Lesson: Objective: Students will calculate their average heart rate after physical exercise to learn about data collection and bodily functions. To assess students’ progress, consider various forms of evaluation. Michelle Connolly, an expert educational consultant, suggests, “Using a variety of assessment methods, such as peer assessments, self-evaluations, or digital quizzes, allows you to gauge understanding from different angles.” Assessment Methods: Peer Assessment: Students critique each other’s projects related to environmental science and geography, providing feedback on methodology and conclusions. Self-Evaluation: Students reflect on their own learning process and progress, giving them ownership of their achievements. Digital Quizzes: Utilise technology to rapidly assess students’ grasp of topics in a fun and interactive way. Effective cross-curricular lessons rely on the availability and proper allocation of resources. Align your resources with your planned learning outcomes. This could mean reserving the computer lab for research on historical topics or making sure art supplies are ample for a project that combines history and art. Prepare a table to outline the resource requirements for a hypothetical cross-curricular project: WeekResourceSubject IntegrationQuantity Needed1LaptopsICT & Science302PaintArt & History60 tubes3BooksEnglish & Geography1 class set Remember, as you allocate resources, stay adaptable to changes and ready to make the most of what’s available. Michelle Connolly advises, “Flexibility in teaching is key; you may not always have everything you wish for, so be prepared to improvise with what you have.” In the realm of education, fostering critical thinking and inquiry is paramount to your students’ success. These skills equip them to ask probing questions and seek deeper understanding, paving the way for a culture of deeper learning. When planning lessons that integrate various subjects, you are not merely aiming to cover content; you are striving to enable cognition that sees beyond the obvious. Initiate with a thought-provoking question to ignite curiosity. For instance, asking “How does the water cycle impact different ecosystems?” encourages learners to connect science with geography. As they research, they develop an ability to dissect complex topics and seek relevant information. Step in Inquiry ProcessKey ActionQuestion formulationEncourage students to verbalise their own investigationsGather & Analyse DataGuide them to locate and interpret informationReflectionAllow time for consideration and understanding of their findings Michelle Connolly, founder of LearningMole, remarks, “True learning unfolds when students intertwine inquiry with critical thinking; lessons become a discovery rather than a chore.” In your classrooms, scaffold this process by presenting scenarios that require learners to evaluate information critically, thereby enhancing their thinking process. Remember, during cross-curricular lesson planning, weave opportunities for students to ask varied questions and conduct independent research. These skills form the bedrock of inquiry and are integral to understanding complex, interdisciplinary topics. Integrate activities that challenge them to hypothesise and draw conclusions, leading to a robust understanding of the interconnectedness of knowledge. To effectively cater to the full spectrum of learning styles in the classroom, it’s essential to blend visual, practical, kinesthetic, and auditory methods into your lesson plans. This creates a multisensory approach that facilitates better communication and engagement among all students. Introduce visual aids such as diagrams, flowcharts, and mind maps to clarify complex concepts. These tools can help visual learners grasp relationships between ideas and retain information more effectively. For instance, in a science lesson on the water cycle, providing a colour-coded diagram can help students visualise the process and understand the sequence of events. Practical models, on the other hand, allow students to manipulate and explore the subject matter. For example, using a globe for geography lessons can bring concepts like time zones and earth rotation to life for practical learners. Kinesthetic learning involves movement and physical activity. Encourage students to engage in role-plays or experiments, like re-enacting historical events or participating in simple DIY science projects that reinforce their understanding through action. Auditory learners benefit from discussions and oral presentations, which bolster their retention through listening and speaking. Incorporating rhymes or mnemonic devices can also be a playful yet powerful way to reinforce learning. “Using a variety of teaching methods caters to all learning styles and keeps students actively engaged,” says Michelle Connolly, an education specialist with over 16 years of classroom experience, emphasising the importance of adopting a diverse approach to lesson planning. Incorporating creativity and culture into lesson plans enriches the learning experience by connecting educational content with diverse cultural expressions and creative processes. When you bring art and music into the classroom, you are not only introducing students to different forms of expression but also enabling them to make personal connections with the subject matter. For instance, including Renaissance art in a history lesson can provide a vivid context for the era being studied. Integrating music allows students to understand historical periods, emotions, and cultural dynamics through sound. Michelle Connolly, with her extensive background in education, emphasises that “art and music are critical for developing creative thinkers and learners who can make unique connections between subjects.” Discussing and preparing foods from various cultures can be a powerful element in cross-curricular lesson plans, especially when examining geography, history, or language studies. This approach respects cultural diversity and promotes inclusivity, making lessons more engaging and personal. “When you sit down to a meal, you’re experiencing a culture’s history and values on a plate,” says Michelle Connolly. This sentiment highlights the impact that integrating food and traditions into learning can have on students’ understanding of the world. Incorporating literature into social studies can enhance your understanding of historical contexts and cultures, allowing you to explore time and place through narratives and characters. When you introduce works of literature into the social studies curriculum, you bridge the gap between past and present. For instance, reading a novel set in the Middle Ages gives you a vivid sense of daily life, societal norms, and the historical events of the time. Characters in these stories can offer personal perspectives that textbooks may not provide, enabling you to immerse yourself in that specific era. Connecting Literature with History Pairing historical texts with literature can bring significant events like World War II to life. Consider the poignant impact of a novel detailing the atomic bomb; it allows you to explore the complexities and emotions surrounding this momentous period. Michelle Connolly, founder and educational consultant at LearningMole, says, “When you connect emotive literature with factual history, you create a powerful learning experience that goes beyond the classroom.” It’s not just about dates on a timeline or memorising events; it’s about understanding the human experience through ELA and social studies, two subjects that, when combined, can be incredibly enlightening. In the pursuit of cross-curricular integration, your lesson planning can immensely benefit from incorporating language arts and literacy. These areas are fundamental to enhancing students’ vocabulary, reading, and communication skills. Reading: Improves comprehension and analytical thinking. Writing: Enhances expression and critical reasoning. Listening: Develops concentration and understanding. Speaking: Boosts confidence and persuasion skills. By intertwining language arts with other subjects, you create a dynamic learning environment. It allows students to apply and grow their literacy skills, connecting their understanding across the curriculum. Use literature that relates to topics in science or history to enrich vocabulary and context. Design writing assignments that require research and synthesis from various subjects. Foster discussions that enable students to articulate their thoughts with clarity. Select key terms from each subject area and weave them into language arts activities. For example, while discussing the water cycle in science, incorporate descriptive adjectives and narrative writing to deepen understanding. As an expert experienced educational consultant, Michelle Connolly says, “Effective communication is at the heart of all learning. By embedding literacy into every aspect of the curriculum, we gift children with the power of expression that transcends subject boundaries.” Remember, combining language arts with other disciplines enriches every aspect of learning, making education not just about knowledge acquisition but also about personal and intellectual growth. Your students will thank you for it! When integrating cross-curricular approaches, it’s crucial that you continuously evaluate and reflect on student progress. This involves a cycle of assessment, aligning collaborative efforts, and reflection. Let’s break it down: Assessment: This is both formative and summative. Formative assessments help you monitor student learning and provide ongoing feedback that can be used by you to improve your teaching and by students to improve their learning. Summative assessments evaluate student learning at the end of an instructional unit by comparing it against a standard or benchmark. Regular checks on progress ensure that learning objectives are being met.Example: After a project, a quick quiz or a reflective essay can serve as a summative check to confirm that key concepts have been understood. Aligned Collaboration: When working with other teachers, it’s important that collaboration is cohesive and that the goals are clearly defined and aligned with curricular standards. This ensures that the integrated lessons support the intended outcomes across the subjects.Example: You might co-plan a lesson with a science teacher to ensure that mathematical skills are accurately used within a scientific context. Reflection: This is where you, the educator, take the time to consider what went well and what could be improved. Reflection also applies to students, who should be encouraged to think about their own learning process.Example: “It’s through reflection that we can engage in a process of continuous improvement,” suggests Michelle Connolly, an educational expert with notable experience. Teacher Efforts: Your role is critical in adapting lessons in response to the reflections and assessments. You must be willing to tweak and iterate your plans to meet student needs effectively.Example: If a particular cross-curricular approach did not resonate as expected, consider alternative methods or different collaborative pairings for the next project. By maintaining this cycle of evaluation and reflection, you ensure that your teaching stays dynamic and responsive to the needs of your students. Remember, the aim is not to add more work for you, but to enhance the learning experience for your students. Keep your endeavours aligned, assess regularly, and reflect deeply to foster a rich learning environment. When children can understand, for example, how math and science work in their everyday lives, they are more able to connect with them.Cross-curricular learning also has a positive impact on children’s cognitive abilities. Young children are naturally interested in exploring the world around them. If subjects are connected, educators can help children understand their world by nurturing that curiosity, which in turn encourages critical thinking. A study led by Jones (2018) found that this type of learning can help to improve the problem-solving abilities of children and also foster a more intermeshed intellectual curiosity. Children experiencing cross-curricular learning demonstrate higher levels of memory skills and a more positive outlook. These processes have been shown to have positive effects on a child’s social and emotional development. Cross-curricular activities, for instance, often involve working together on projects. This helps children learn early on the important skills they will need to work and talk to their peers. By teaching and learning together, positive relationships develop more easily, and this experience can foster skills that will help children for their entire lives, such as teamwork, communication and empathy. According to learning psychologists Smith and Pellegrini (2013), these experiences can greatly benefit children in acquiring interpersonal skills. On our way to school today, my daughter joined a time-honored tradition of student pushback, uttering, “But when am I going to use this?” I understand her frustration. As an educator, I’m in a unique position to see evidence of the skills I’m teaching students in a variety of content areas. For some students, though, the artificial walls between content areas compartmentalize learning. This inhibits a student’s ability to see how such skills are connected to their lives or their larger body of knowledge. Cross-curricular lesson planning can address this issue. In his piece “Deeper Learning: Why Cross-Curricular Teaching is Essential,” education blogger Ben Johnson notes that “deeper learning can be accelerated by consolidating teacher efforts and combining relevant contents.” Helping students draw connections between individual skills or content areas is the foundation of building a deeper understanding of the world: knowledge and transfer rather than rote memorization of content. Breaking down walls between content areas Cross-curricular lesson planning tries to unite more than one content area in lectures, assignments or even full units of study. Instructors can team up with a teacher in another content area and find overlapping areas in their teaching goals. This leads to concept-based learning activities where teachers combine enthusiasm and energy to show how their content areas interact. Such work can help students understand the importance of individual skill sets and how they harmonize with larger goals. This work supports the transfer of student knowledge by answering “when am I going to need this” in immediate ways. It also creates an opportunity for contextualizing and connecting content knowledge, making students more likely to remember what they have learned. Cross-curricular planning Some study areas, such as writing, are easy to translate across a curriculum. Students who learn the specifics of essay writing in English or composition courses can readily practice those skills in every class from science to math. A math student can be challenged to explain a theorem or whether a formula can be applied in a certain circumstance through an essay. Student skills at such assignments can be enhanced when their teachers team up and teach and accept the assignment from both subject areas. Better yet, the teachers can team-teach the overlapping units of study, offering overlapping rubrics and accepting assignments for points in both classes. Creating cross-curricular lesson plans in other content areas is slightly more difficult. History and math instructors, for example, may struggle with integrating assignments. Some brainstorming on teaching goals can lead to interesting potential projects like having students use algebra to predict the size of Revolutionary War regiments or calculating the cost of creating them. Applying math in such a way creates a deeper understanding of the historical position of Revolutionary war soldiers as well as highlighting how math is found in the “real world.” Denied a standard 13×9-inch pan, a culinary-skills class can calculate pan volumes to find the best new fit, while physical education students can consider how trigonometry or physics apply to the baseball diamond. It’s not always easy Cross-curricular lesson planning has limitations. Instructors must be personally invested and have the time to work in teams creating such plans. They also need to find good partners they can work side by side with and create opportunities in their schedules to combine classes. Administrators, curriculum designers and teacher leaders should find and support teachers who are interested in creating such assignments with proper planning time and other necessary resources. But it’s worth it Creating cross-curricular learning opportunities is an important investment of time and effort. Educators who start small with simple assignments may find that they expand their offerings or teacher pairings over time, creating a complex network of interrelated content and coursework helping students see the full connectedness of everything they learn. Monica Fuglei is a graduate of the University of Nebraska in Omaha and a current faculty member of Arapahoe Community College in Colorado, where she teaches composition and creative writing. You may also like to read Cross-curricular teaching makes learning more relevant by connecting different subjects around a common theme.The Common Core standards encourage students to focus more on non-fiction for cross-curricular learning.Planning is key to successful cross-curricular teaching, involving integration of objectives from different subjects. Curriculum

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Time to teach all the standards, the content, the skills… I often felt like my pacing guide was my enemy, so I had to find ways to teach smarter, not harder. Enter cross-curricular activities! Cross-curricular lessons are all about teaching more than one subject area at a time. This could look like introducing math vocabulary during a nonfiction reading lesson, solving science-themed word problems, or studying history through famous paintings. engaging for studentsreinforce learning by exposing students to content and skills in multiple areashelp students make connectionsserve as spiral reviewsave instructional time because you can teach two things at once It can seem complicated, but you can definitely make it work without a lot of work. Let’s dig into a few tips for getting started using cross-curricular activities in elementary school. You do NOT have to plan 3-week-long thematic units that incorporate every single subject area – especially if you’re just starting out with cross-curricular teaching. Plus, focusing on an activity that just links two areas is a great way to make sure kids aren’t getting overwhelmed with too much content at once. If you take it one subject and one unit at a time, it’s easier to identify places where you can bridge standards and skills. Even one cross-curricular activity in a unit is a great start! I generally look at my pacing calendar for the next few weeks and come up with a list of a couple of places where I see possible cross-curricular connections. For example, 5th graders in Virginia need to identify nonfiction text structures. Here’s an easy place to bring in some science or social studies. Below is a Virginia Studies text structures sorting activity that helps students review Virginia’s geography. 2-in-1! One of the easiest ways to go cross-curricular is to combine reading instruction with other subject areas. For example, I always give students informational texts about content I’ve taught (or am about to teach) in other subjects. That way they’re getting the content while practicing whatever reading skill I’m teaching. I love this strategy to both introduce new material and to reinforce or review material I’ve already taught. Pairing content areas and reading can happen in more than just a nonfiction unit. Literary nonfiction, poetry, functional text, and research skills also work well. Another option is to bring reading into other subjects like math and social studies. For example, I use Longfellow’s poem to teach students about Paul Revere’s ride. They get practice with visualizing, sensory words, and context clues while learning about Revere’s contributions during the American Revolution. There are tons of picture books and chapter books to teach science, social studies, health, and math! Chances are your students are probably doing a good amount of writing when you’re teaching other subjects, but if you want to go more in-depth, cross-curricular research projects are another great choice. I love doing at least one science and one social studies research project each year. For example, students can research a famous individual from the American Revolution and create a biographical artifact to represent him or her. Or they might study an environmental issue and create a media message to inform the community about negative human impact. Some other writing units you can match with other subjects and with specials are informational text or “expert writing,” paragraph writing, persuasive writing, historical narratives, poetry, and media messages. Math is another easy place to bring in some cross-curricular activities that don’t take too much planning. One of my favorite strategies is to write themed questions or word problems. Kids find it super engaging and I know they’re getting spiral review of the content I’ve taught. Data and graphing are another area that I like to link with other subjects, and it helps reinforce how we use data outside of math. You can create graphs that match your content, like below, to use during math class, or you can have students graph content they learn about. While it can be hard to coordinate times to collaborate with specials teachers, it’s worth it to pair up with the P.E., Music, and Art teachers at your school to brainstorm some interdisciplinary lessons. Here are a few quick ideas: review math facts during a PE gamepractice unit vocabulary by writing a song with the music teacherstudy the architecture or artwork of a particular culture or time period in art classresearch and listen to music from another country or century in music classresearch inventors and inventions during a STEM class It does take some planning, but chances are that specialists will be open to finding new ways to engage students while also supporting your curriculum! If you’re a classroom teacher who is compartmentalized, you can also work with your grade level team to plan some cross-curricular lessons. Cross-curricular activities can definitely help you teach smarter, not harder, especially if you keep it simple! Let me know if you have any questions getting started with cross-curricular resources in your classroom!