



# INFORMATION CAPSULE

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### THEME SCHOOLS

#### AT A GLANCE

*Theme schools are opening across the United States as an alternative to large, comprehensive high schools. Theme schools offer students an opportunity to enroll in a school based on their interests and aspirations. They follow a distinctive curriculum, developed around a special theme, and integrate that theme into all content areas. This information capsule reviews characteristics of effective theme schools, issues that should be considered when creating a theme school, and studies conducted on the effectiveness of theme schools. Research suggests that theme schools have a positive impact on students' levels of academic achievement, motivation, and engagement and on their perceptions of education and future career paths. In addition, one study found that theme school teachers reported higher levels of job satisfaction and job efficacy. A review of research conducted on small schools, magnet schools, and schools within schools is also provided. Plans for the creation of Miami-Dade County Public Schools (M-DCPS) theme schools and the reconfiguration of the District's senior high schools into multiple small career academies are discussed.*

### INTRODUCTION

Most public school systems in the United States feature large, comprehensive high schools that enroll over a thousand students and offer a predominantly college preparatory curriculum. Many students fail to see how working hard in school will enable them to attain their educational and career goals because courses are often not relevant to their lives outside of school. In addition, college preparatory courses may not meet the academic needs of some minority students and English language learners, or students who enter school with weak reading and mathematics skills. Many comprehensive urban high schools are now perceived as places where low expectations, alienation, and low achievement prevail; students spend much of their time passively listening to lectures or doing repetitive, routine tasks; students often don't get to know or be known by their teachers; and resources are lacking. These criticisms help to explain the present search for alternatives to the traditional high school (Bill and Melinda Gates Foundation, 2005; Great Schools, 2004; National Research Council, 2003).

A growing trend across the country has been the establishment of small and highly specialized theme schools. Theme schools typically enroll 400 to 500 students and follow a distinctive curriculum while adhering to state and local academic standards. The extent to which the theme is integrated into the curriculum varies from school to school. Some schools infuse the theme into virtually every class, while others offer a more limited number of classes in the theme area. Schools choose themes that are based on a disciplinary focus (such as science, mathematics, humanities, or multicultural

studies), an area of interest (such as cooking, urban issues, or the environment), or a potential career path (such as journalism, law and government, or police and fire fighting). Studies have found that students are more engaged in their schoolwork when they understand its relevance to their future goals (National Research Council, 2003; Stipek, 2002; Ryan & LaGuardia, 1999).

Career theme schools are especially popular because they offer students an education related to a specific industry or job area. Career theme schools incorporate learning outside of the school (such as community projects, job shadowing, and internships) into the classroom curriculum. Some career theme schools form partnerships with businesses in the community, providing students with the opportunity to work at jobs in their chosen career area. Research has shown that career theme schools help students envision future careers, obtain direct information about careers, and understand related educational requirements (Murphy, 2005; Great Schools, 2004; National Research Council, 2003; Ryken, 2001; Crain et al., 1999; Schneider & Stevenson, 1999; Hershey et al., 1998; Pedraza et al., 1997; Schwartz, 1995).

### **CHARACTERISTICS OF EFFECTIVE THEME SCHOOLS**

Characteristics of effective theme schools include (National Research Council, 2003; Raywid, 1994):

- The theme does not segregate students along racial, ethnic, gender, or socioeconomic class lines.
- All staff and students have chosen to be at the school.
- The theme allows students to experience a sense of continuity and connection from one subject to another.
- The theme articulates a full school program, providing direction for decisions on courses and content. Selecting a broad theme (for example, health occupations rather than nursing, industrial production rather than welding, or agriculture rather than farming) allows the school to incorporate the theme into most subject areas, including standard academic subjects.

- Most course content offered within the school is intended for all students, in contrast to a curriculum divided into tracks and electives.
- The school demonstrates concern with students' academic, personal, and social development.
- Teachers are highly committed to the school's mission. They form a strong professional community by frequently engaging in collegial interaction and collaboration. The schedule permits teachers frequent meeting time to determine how well the school is functioning and to develop new plans and make modifications to existing programs. Teachers have extended roles, serving students not only as instructors, but also as advisors and mentors.
- The school is distinctive, reflecting an identity or "personality" of its own.
- The school sees itself as a community, establishing expectations of its members and making commitments to them.
- The role of parents is similar to their role in traditional schools. Parents do not strongly influence the instructional orientation of the school. Their empowerment rests mainly with their opportunity to select the theme school.

### **ISSUES TO CONSIDER**

When creating a theme school, school districts should consider the following issues (Bill and Melinda Gates Foundation, 2005; Great Schools, 2004; Raywid, 1994; Hill et al., 1990):

- School districts must determine the basis upon which school assignments will be made (for example, neighborhood school assignment or family choice) and assure that selection procedures are equitable. The selection of staff and students should avoid homogeneity based on ethnicity, gender, socioeconomic status, or academic ability.
- School districts should ensure that resources are allocated equally among all of their schools. Educators must carefully plan their schools' locations and curricula and target low income students appropriately. The primary expense

associated with theme schools is the start-up cost for each school, including new equipment and supplies and the time required by staff to develop new programs. Theme schools are often able to obtain outside financial support from corporate and philanthropic agencies.

- School districts must determine how to provide all families with the information they need to choose a school. They should communicate with those families who are least likely to understand their options and make sure all parents have access to information.
- Theme schools should be built one by one, not mass produced as identical versions of a fixed model. The challenge every district faces is to create distinctive schools within a system designed to assure uniformity.
- School districts must decide if they will open a theme school in a newly built or purchased facility or if an existing large school building will be used. Hill, Foster, and Gendler (1990) concluded that the easiest way to create a theme school is to start with a new or unoccupied building, recruit staff, and allow for a period of planning before accepting students. This approach gives staff a chance to form working relationships and plan programs before admitting students. When dedicated buildings are not available, theme schools can be opened as small schools inside traditional schools.
- Theme schools should be allowed enough autonomy to implement their own unique programs. The central office must become less of a regulatory and evaluative organization and more a facilitator of school-level problem solving. Excessive regulations, contracts, and reporting requirements can be serious impediments to site management.

## **RESEARCH ON THEME SCHOOLS**

Studies have found that the classroom curriculum is more meaningful to students when it is perceived as relevant to their interests, real-world experiences, and long-term goals. Research also shows that engagement increases when students are given some autonomy in selecting classroom tasks and when they play an active role in learning. In addition, studies have found that students are

more motivated when they are actively engaged in problem solving and applying new knowledge to real-world problems than when standard textbooks and worksheets are used as the basis of instruction (National Research Council, 2003; Stipek, 2002; Ryan & LaGuardia, 1999).

Research on theme schools is limited because few theme schools have been in place long enough to be evaluated. Of the studies that have been conducted, most have focused on career academies, a specific type of theme school. Studies that have been conducted to date suggest that theme schools have many potential benefits and few negative effects (National Research Council, 2003).

### Outcome Evaluations

Hill et al. (1990) compared theme schools, traditional schools, and private Catholic schools. All of the schools were located in inner-city neighborhoods and enrolled large proportions of poor, minority students. They found that theme school students' average combined score on the Scholastic Aptitude Test was higher than traditional school students' average score (715 versus 642), but lower than Catholic school students' average score (803). Similarly, the theme school graduation rate was higher than the traditional school graduation rate (66 percent versus 55 percent), but lower than the Catholic school graduation rate (82 percent). It should be noted that the authors of the study did not control for students' prior academic performance.

Stern, Raby, and Dayton's (1992) evaluation of career academies reported an annual dropout rate for career academy students of 2 to 4 percent, compared to 10 to 11 percent for a comparison group of non-academy students, matched by ethnicity, gender, and achievement test scores. Academy students had better attendance, failed fewer courses, and obtained better grades than non-academy students. Overall, 94 percent of academy students graduated, compared to 79 percent of non-academy students, and a higher percent of academy students attended four-year colleges (62 percent versus 47 percent).

Maxwell and Rubin (2000) compared students attending career academies and traditional schools, controlling for demographic variables, including ethnicity, gender, English proficiency,

special education status, and tenth grade achievement. They found that career academy students had significantly higher grade point averages and were more likely to attend four-year colleges.

Manpower Demonstration Research Corporation (MDRC) conducted a random assignment evaluation of 10 career academies. The first set of results released indicated that students who were at the greatest risk of dropping out of school benefitted the most from attending a career academy. The dropout rate for high-risk academy students was 21 percent, compared to 32 percent for a comparison group of high-risk students who did not attend a career academy. High-risk academy students' average attendance was also higher. The high-risk academy group earned more credits overall and more credits in college preparation subjects than the comparison group. High-risk academy students were more likely to have explored college options, to have taken the ACT or SAT, and to have submitted college applications. No significant differences were found, however, between the reading and mathematics standardized achievement test scores of high-risk academy students and the comparison group. Results for medium- and low-risk students were less conclusive. Although most comparisons favored academy students, few of the differences were statistically significant (Kemple & Snipes, 2000).

The second set of results released by MDRC examined graduation rates and enrollment in postsecondary programs. Graduation rates for academy and non-academy students were almost identical (87.2 percent versus 86.7 percent), as were rates of enrollment in postsecondary programs (54.8 percent versus 54.6 percent). High-risk academy students had higher graduation rates than high-risk non-academy students (77 percent versus 73 percent), were more likely to graduate on time (56 percent versus 50 percent), and were more likely to enroll in postsecondary education programs (41 percent versus 37 percent), but none of the differences was statistically significant (Kemple & Snipes, 2000).

### Student Perceptions

Crain et al. (1999) interviewed students at four theme schools. The theme schools were located in a low income city and its suburbs. The majority

of students were from low and moderate income families. Approximately 86 percent of the students enrolled at the theme schools were Black or Hispanic; the remainder were White, Asian, or Native American. Students said internships and after-school programs gave them opportunities to learn and practice skills in workplace settings. Students reported these experiences increased their interest in college preparation classes that were relevant to workplace skills and encouraged them to actively plan for the future. Drawbacks to attending a theme school reported by students included inadequate academic preparation time, a lack of role models among teachers and administrators from minority backgrounds, and overworked teachers.

In a survey administered to students attending inner-city theme, traditional, and private Catholic schools, students attending theme schools said they felt safer at their schools than students attending traditional schools (although students attending Catholic schools gave this item a higher rating than students attending theme or traditional schools). Theme school students gave higher ratings when asked if their school was clean and in good repair and if people "take pride in school," compared to students attending both traditional and Catholic schools (Hill et al., 1990).

MDRC's random assignment evaluation of career academies included interviews with students from 10 career academies. Students interviewed at a traditional school served as the comparison group. Academy students consistently ranked their schools and teachers higher than non-academy students and reported more personalized attention, more help with personal problems, and more concern about their performance and their futures. Academy students also reported that their peers were more engaged (paid attention, tried to get good grades, and thought doing well in school was important) (Kemple, 1997).

Maxwell and Rubin's (2000) survey of students attending career academies and traditional schools found that academy students gave higher ratings to items related to motivation and engagement, including supporting good study habits, maintaining positive attitudes toward schooling, being prepared for their current education, and being self-motivated. In addition, career academy students were more likely to report that their program helped them to see the relationship between school and

work, prepared them for their current or most recent job, and was related to their future education or career.

Stasz and Kaganoff (1998) examined career academy students' perceptions of their work placements. The majority of students expressed positive attitudes toward their work experiences, but did not find them very challenging. They perceived the links between school and work to be weak, despite practices intended to facilitate cooperation. Students also indicated that, because of their work placements, they had less time to do homework.

### Teacher Perceptions

Although most studies conducted on the effectiveness of theme schools have focused on academic outcomes and student perceptions, MDRC also examined teacher perceptions. As part of their evaluation, questionnaires were distributed to career academy teachers. Teachers at a traditional school, also receiving questionnaires, served as the comparison group. Academy teachers reported more collaboration with their colleagues, greater influence over instruction and administrative policies, more opportunities to learn, more colleagues who emphasized personalized attention to students, and generally higher levels of job satisfaction and efficacy (Kemple, 1997).

In summary, most research suggests that theme schools have a positive impact on students' levels of academic achievement, based on standardized achievement test scores, grade point averages, attendance, graduation rates, and college enrollment. Students attending theme schools report receiving more personalized attention, feeling safer at their schools, and having higher levels of motivation and engagement. One study concluded that students who are at the greatest risk of dropping out of school benefitted most from attendance at a theme school. High-risk students attending theme schools had lower drop out rates, earned more credits, and were more likely to plan for the future. An evaluation of career academies found that theme school teachers reported higher levels of job satisfaction, more opportunities to collaborate with colleagues, and greater ability to provide personalized attention to students.

## **RESEARCH ON SMALL SCHOOLS AND MAGNET SCHOOLS**

The theme school concept incorporates elements of both small schools and magnet schools. Small schools provide the same curriculum as traditional schools, but in smaller school settings. Both theme schools and magnet schools offer a specialized curriculum and usually enroll a smaller number of students than traditional schools. Since small schools and magnet schools share these characteristics with theme schools, a brief summary of the research findings on small schools and magnet schools is provided below.

### Small Schools

There is little consensus among researchers regarding the definition of a small school. On average, research indicates that an effective size is 300 to 400 students for elementary schools and 400 to 800 students for secondary schools (Cotton, 2001; Gregory, 2001; Williams, 1990). A study conducted by Lee and Smith (1997) found that "the ideal high school, defined in terms of effectiveness (i.e., student achievement in reading and mathematics), enrolls between 600 and 900 students. In schools smaller than this, students learn less; those in large high schools (especially over 2,100) learn considerably less" (p. 205).

Most studies show that students attending small schools (usually those that enroll between 400 and 500 students) perform at higher achievement levels when compared to other students, although several recent studies have questioned these conclusions. Students and teachers consistently report higher levels of satisfaction with small schools.

- Student Achievement. Most research has found that students attending small schools have higher levels of academic achievement, as measured by standardized achievement test scores, than students in traditionally-sized schools. Studies have also found that poor and ethnic minority students have notably higher levels of achievement in small learning environments. School attendance and graduation rates are higher in small schools, while dropout rates are consistently lower. Small schools also produce greater numbers of college bound students (Cotton, 2001; Howley et al., 2000; Gladden, 1998).

Researchers who controlled for students' family and educational background characteristics and analyzed student achievement gains over time, rather than their achievement at a specific point in time, found that students attending large and extra large schools posted greater achievement gains than students attending small and medium size schools (Palardy and Rumberger, 2002; Rumberger and Palardy, 2002; Rumberger and Palardy, 2001). Rumberger and Palardy (2002) also found that, although large schools produced higher levels of achievement, they also had higher dropout rates. The authors concluded that optimal school size appears to vary depending on the educational outcome measured.

- School Climate. Researchers have concluded that there are fewer incidences of drug use, assault, vandalism, violence, suspensions, and expulsions at small schools. School size research has found that students attending small schools feel safer and have stronger feelings of affiliation. Levels of extracurricular participation are higher in small schools. Students attending small schools report having more important roles in extracurricular activities and deriving more satisfaction from those activities than students attending traditionally-sized schools (Cotton, 2001; Gladden, 1998).
- Teacher Satisfaction. School size research has found that teachers at small schools report that they have a stronger professional community, are more likely to collaborate with colleagues, and are more likely to engage in professional development they find valuable. Teachers at small schools also indicate that they have closer relationships with students, experience fewer student discipline problems, and are better able to adapt instruction to students' individual needs (Wasley et al., 2000).

### Magnet Schools

Research indicates that magnet schools provide academic and social benefits to students and lead to higher levels of student and teacher satisfaction.

- Student Achievement. Research suggests that magnet schools experience varying levels of success. Although most studies have concluded that magnet school students' academic achievement exceeds that of non-

magnet school students (Kruegar & Ziebarth, 2002; Flaxman et al., 1999; Fuller et al., 1999; Gamoran, 1996), one study that controlled for students' academic ability found that magnet students performed at lower levels than their non-magnet counterparts (Adcock & Phillips, 2000). Additional research is needed to determine magnet schools' impact on student learning (Kruegar & Ziebarth, 2002).

- School Climate. Magnet schools have been found to increase student motivation and satisfaction with school. Researchers have also concluded that magnet schools are more successful in promoting a sense of community than traditional schools through higher levels of parent involvement, school responsiveness, and a shared set of values (Hadderman, 2002; Flaxman et al., 1999; Smrekar & Goldring, 1999).
- Teacher Satisfaction. Studies have found that levels of teacher satisfaction, motivation, and morale are higher in magnet schools. Magnet school teachers report having more resources, more flexible curricula, and more involvement in decision making (Hausman and Goldring, 2000; Flaxman et al., 1999; Smrekar & Goldring, 1999).

### **SCHOOLS WITHIN SCHOOLS**

Schools within schools are comprehensive schools that have been divided into small independent subunits. They "seek the advantages of both large and small schools by placing students into small learning communities while using the resources of the larger existing facilities" (McAndrews & Anderson, 2002, p.1). Schools within schools create a personalized learning environment and foster supportive relationships between teachers and students. Students attending schools within schools take most of their classes with the same group of teachers and students. Research indicates that supportive personal relationships are a critical factor in promoting and maintaining student engagement (U.S. Department of Education, 2005; National Research Council, 2003; McAndrews & Anderson, 2002).

A review of the research conducted on schools within schools is included in this information capsule because many comprehensive high schools across the United States are reorganizing into multiple

small schools and offering a curriculum based on a theme or focus that is unique to each subschool. Advocates of schools within schools believe that their benefits closely parallel those found in small schools. While considerable research supports the efficacy of small schools, the research on schools within schools is less extensive and less conclusive (Wallach & Lear, 2003; McAndrews & Anderson, 2002; Cotton, 1996). The research summarized below includes schools within schools that were configured as either theme schools or standard curriculum schools.

Allen, Almeida, and Steinberg (2001) conducted interviews with students and teachers at five Massachusetts high schools that were divided into small learning communities. All of the schools served low performing students from diverse ethnic backgrounds. Most schools clustered students into career pathways, while others combined career pathways or grade-level clustering with career-related courses as junior and senior year electives. Findings, based on the interviews, included:

- Students were more likely to succeed when they were taught by teachers who elected to participate in a particular pathway or cluster.
- Students did not learn effectively when they were required to remain in a career pathway that no longer interested them.
- Bilingual programs struggled to maintain basic services to bilingual students and to provide equitable access to upper grade level career pathways. Inadequate levels of staffing compounded the problem.
- Tensions arose from clustering students and teachers into small learning communities. Some teachers expressed the belief that the school unity and common vision that existed prior to the reforms disappeared when the schools were restructured.

Three comprehensive high schools in Washington state were restructured into small schools of 400 or less students. Findings from the study included (Wallach & Lear, 2003):

- Strong, engaged, and positive leadership by the principal contributed to the schools' effectiveness.

- Across the three schools, data analysis on several outcome measures revealed discouraging information. Current students and recent graduates reported a lack of challenge or engagement in their courses. Over 40 percent of ninth graders failed one or more of their courses. Only six out of 10 ninth grade students graduated in four years. Many of the graduates who enrolled in colleges or universities had to take remedial courses. The first year grade point average of college students declined more than that of students from other Washington high schools.

Darling-Hammond, Aness, and Ort (2002) conducted a seven-year study of students at five small schools that were created to replace failing comprehensive high schools. Despite the fact that the small schools served a more educationally disadvantaged population of students, the study found that students at the new, smaller schools had better attendance, lower disciplinary incidence rates, better performance on standardized assessments (as measured by the percent of students making gains on the city's Language Assessment Battery and the percent of students passing the Regents Competency Tests in reading, writing, and mathematics), higher graduation rates, and higher college enrollment rates.

Darling-Hammond et al. (2002) concluded that the following factors influenced the schools' success:

- small school size;
- personalized relationships between students and teachers;
- a carefully constructed curriculum that targeted specific proficiencies;
- use of multiple instructional strategies;
- connection to students' experiences to support understanding; and
- placement of students in external learning experiences, such as internships and community service activities.

In 1995, Julia Richman High School in New York City was phased out as a large comprehensive high school and reopened as a multiplex of choice schools, including four high schools, one middle school, and one elementary school. The multiplex has been viewed as a success by educators, community members, and parents. Dropout rates at the complex's senior high schools are lower than citywide averages, locally administered test scores

have increased, and the majority of students attend college after graduation. Students have a stronger sense of belonging and supportive relationships have developed between teachers and students. Additional research is needed, however, before definitive conclusions regarding the schools' success can be drawn. Until recently, Richman's high schools were exempt from statewide testing (Robinson, 2004; Toch, 2003).

- Those who oppose the creation of schools within schools tend to focus on two areas of concern: conflict and dissension between subschools and ability grouping of students.
- Researchers have found that the creation of subschools can promote rival subcultures. Allegations of favored treatment and competition for resources (teachers, space, and funding) are frequently observed (Robinson, 2004; Raywid, 1996; Muncey & McQuillan, 1991).
- Some educators are concerned that the establishment of subschools will lead to ability grouping and tracking. When subschools are themed, instruction is differentiated, thereby increasing the risk that students in different programs will be held to different standards.

- The challenge facing schools within schools is to differentiate instruction while providing the same opportunities for academic growth to all students (Raywid, 1996; Oxley, 1994).

### ON A LOCAL NOTE

Pending authorization by The School Board of Miami-Dade County, Florida, Miami-Dade County Public Schools (M-DCPS) will establish special interest schools (also known as theme schools) throughout the District. M-DCPS special interest schools will offer unique programs of study to help students transition into meaningful employment and/or postsecondary educational programs. Community partners have been identified for each school to provide internships, mentors, and expertise to students and staff. In addition, the programs will include challenging academic courses, dual enrollment opportunities, and industry specific course work.

Enrollment at each special interest school will be limited to 400-800 students. Student selection will follow attendance boundary priorities for students living within the area and the remaining seats will be distributed districtwide, according to policies established and adopted by The School Board of Miami-Dade County, Florida.

The proposed M-DCPS special interest schools are listed in the table below.

Proposed M-DCPS Special Interest Schools

School Type	Proposed Location	# of Seats
Aerospace Science	Museum of Science at Bicentennial Park, Miami	400
Animal Resources and Pre-Veterinary Medicine	Adjacent to MetroZoo	400
Art and Aesthetics	Museum of Art at Bicentennial Park, Miami	400
International Finance	Goleman/American Senior HS Relief Area	400
International Finance	Killian/Palmetto Senior HS Relief Area	400
International Studies	Miami/Coral Gables Senior HS	700
Law Studies, Homeland Security, and Forensic Sciences	Miami Police Department, Downtown Miami	400
Medical Research and Technologies	Civic Center Area, Miami	500
Medical Research and Technologies	Homestead Senior HS Relief Area	500
Musical Arts	Varela/Sunset/Southridge Senior HS Relief Area	800
Olympic Education and Sport	North Miami Senior HS Relief Area	600
Real Estate, Architecture, & Construction	City of Hialeah	500



Special interest schools that will operate in partnership with Florida Memorial University and the University of Miami have already been approved by the School Board. Other schools that will be considered in the future include a Firefighters' School and a Math and Science School in the Killian/Palmetto relief area.

In addition to the special interest schools listed above, the District is proposing a reconfiguration of at least 12 senior high schools into smaller career academies. Students will attend one of several academies, or schools within schools, in a building that formerly housed one large comprehensive school. The district plans to reorganize all senior high schools in a similar manner in future years.

### SUMMARY

Theme schools offer students an opportunity to enroll in a school based on their interests and aspirations. Theme schools integrate an area of interest, disciplinary focus, or career path into all content areas while adhering to state and local academic standards. This information capsule reviewed characteristics of successful theme schools and issues that school districts should consider when creating a theme school. Research on the effectiveness of theme schools is limited; however, the available evidence suggests that theme schools have a positive impact on students' levels of academic achievement, based on

standardized achievement test scores, grade point averages, attendance, graduation rates, and college enrollment. Students attending theme schools report they have higher levels of motivation and engagement, are better able to see the connection between school and work, and are planning more actively for the future. Students who are at the greatest risk of dropping out of school also appear to benefit from attendance at a theme school. One study found that high-risk students attending theme schools had lower dropout rates, earned more credits, and were more likely to plan for the future. Teachers at theme schools report higher levels of job satisfaction and job efficacy, more collaboration with their colleagues, greater influence over instruction, and more opportunities to engage in professional learning.

Research also points to the possible academic and social benefits of small schools, magnet schools, and schools within schools. While most studies have found that students attending these schools demonstrate higher levels of academic achievement, uncertainty still exists as to how school type influences different educational outcomes. More research is needed to ascertain if attendance at small schools, magnet schools, and schools within schools leads to higher levels of achievement. The majority of studies have concluded that small schools, magnet schools, and schools within schools all offer a more positive climate and lead to increased levels of student and teacher satisfaction.

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