



# Science Cosmos STEM teaching system

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# Education with a Fun + Learn Philosophy

You can achieve success by licensing the Science Cosmos teaching system. This will help you implement a STEM enrichment program at your organization in a fast and efficient way. What's a better way for a student to learn STEM concepts, than building robots and cool engineering structures.

The mission of Science Cosmos is to offer a fun learning program, where children develop an interest in science, technology, math, and engineering. We want to help stimulate children's interest in learning by getting them excited about what they are doing.

*Let us help guide you  
through the maze of  
implementing this program*





## **Value of STEM Education for Kids**

A strong STEM foundation in education is essential in today's world. While employment opportunities are a great motivation for promoting STEM education, it is not the only benefit students will receive. By combining Science, Technology, Engineering, and Math, children are encouraged to use and develop crucial critical thinking and problem-solving skills. The Science Cosmos teaching methods try to create a learning environment that encourages children to be more active, not just with the hands-on physical experiments, but more active with their minds as well.



## **Our Teaching method**

Our system offers structured and progressive courses. There are challenges and quizzes built in. This can be part of a Hybrid Classroom where the Teachers presence is integral to learning.



## **Leveraging Ed-tech**

We use a purpose built Computer Learning system, with elements of Gamification built in. Students can learn at an individualized pace & the teacher can monitor progression & grading.



## HOW OUR TEACHING SYSTEM CAN HELP YOU



### **MORE THAN JUST CONTENT**

Having the content to teach isn't good enough. How will you teach it? Where do you start? What materials do you need? We help you solve these questions.



### **KNOW THE ANSWERS REAL TIME**

We enhance content that is already out there and make it easy for you to teach. We bring in the elements of student engagement, parent engagement, social learning, real time progress tracking.



### **HYBRID CLASSROOM**

Good teachers are hard to find. Leverage our system to run a hybrid classroom

# Samples of age-appropriate Course choices



**LEGO ROBOTICS FOR GRADES 3+**



**LEGO ROBOTICS FOR GRADES 1-3**



**DNA STRUCTURE**



**ROBOTICS WITH ROBOT C CODING**



**BRIDGE ENGINEERING**



**VIDEO GAME DESIGN**





## WHERE YOU CAN TEACH OUR COURSES



### TEACHING IN SCHOOLS

Classes can be conducted at school premises, to Supplement the curriculum during school hours. Classes can also be offered as an after-school activity



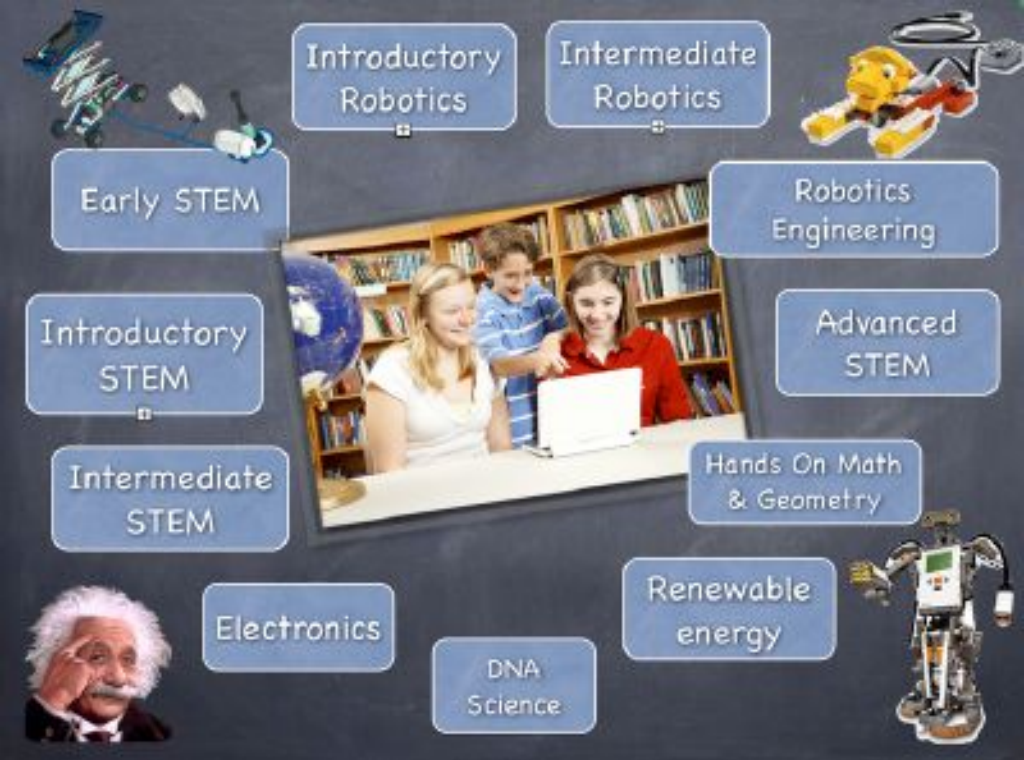
### COMMUNITY CENTERS

Camps and Classes can be taught at community centers (YMCA, Church , etc). Year-long learning programs can be offered as Weekday & Weekend classes.



### SUMMER CAMPS

Program managers use our system to offer structured content in their summer camps. STEM Themes can be offered



## The 4-C method

You may have heard of the 4-C method of teaching for project based learning. We love to use this idea to construct our lesson plans.

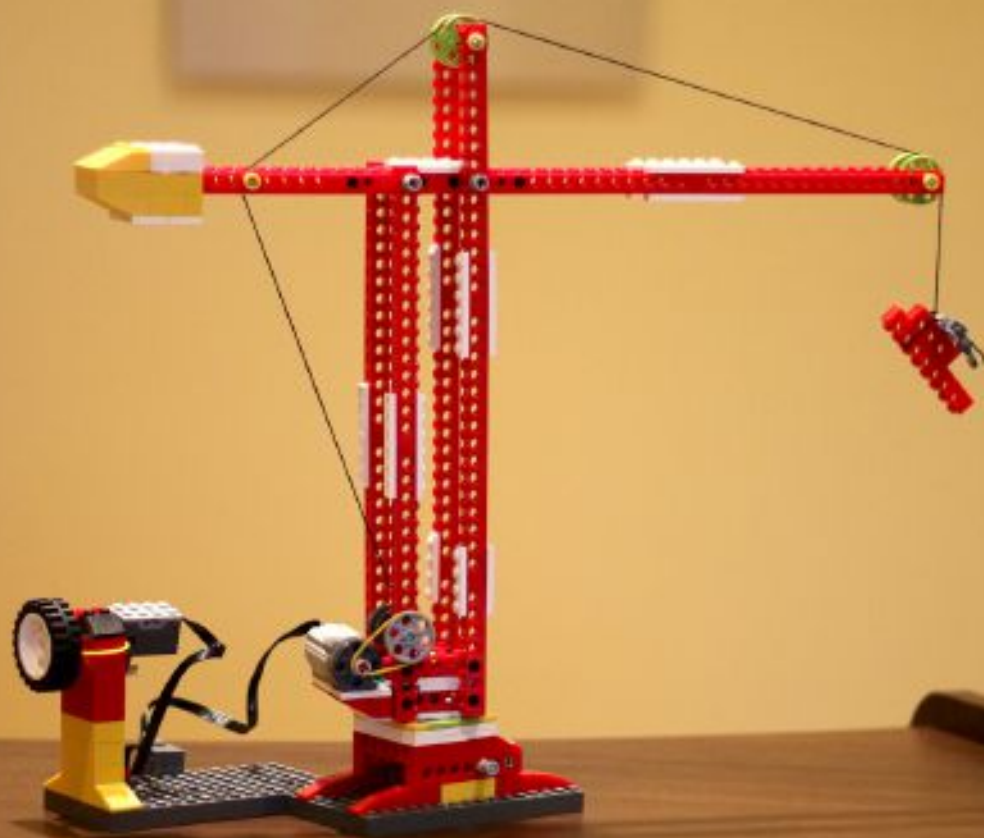
**Connect** - Student makes a mental association between concepts they are about to learn, setting the learning goal for the lesson.

**Construct** - A goal oriented hands-on project is completed. This is the FUN part of the lesson.

**Contemplate** - Critical thinking and problem solving exercises are introduced along with STEAM concepts

**Continue** - Creative challenge to students to use their creativity to improve on the ideas

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## **CAPABILITY FOR REMOTE LEARNING**

Sometimes the situation calls for remote learning. Our system being computer based, easily fits into this paradigm. Lessons can be completed and concepts learnt both with self guided and teacher guided lesson units.

## **CLOUD BASED**

The Science Cosmos learning system runs on the cloud, so you won't need to deal with IT issues. Managers get admin privileges to run reports.





## **Hands on Projects with Legos, electronics & more**

Many lessons are built on popular platforms such as LEGO, K'Nex, Snap-circuits, and more. Our system helps you implement and manage these hands-on curricula efficiently.

### **Why Lego based teaching?**

Legos easily attract the attention of children. As a result they are more receptive and engaged in their learning, while “playing” with Legos. They learn quicker compared to other methods. Students improve their Kinesthetic skills and Problem solving skills.

The Lesson plans are designed to stimulate Critical thinking & creativity





## **Game Based Learning**

Children these days are introduced to video games even before they set foot in kindergarten! Its an integral and familiar part of their lives. Its natural for us to leverage this interest and modify the gaming experience, such that an educational component is introduced.

### **Students learn STEM lessons in a video game enviroment**


Students are attracted to games such as Minecraft. A teacher moderated educational version is used to offer engaging lesson plans, where students learn STEAM Concepts.

## A sample curriculum grid

INTERMEDIATE STEM	LEGO® AS INSPIRATION	ASKING QUESTIONS	DESIGNING/ ENGINEERING INVESTIGATIONS	USING TOOLS TO GATHER/ INTERPRET DATA	DEVELOPING TECHNOLOGICAL SKILLS/ MATHS	PROBLEM SOLVING/ DESIGNING	LEARN AND BUILT (PRELIMINARY KNOWLEDGE)	LEARNING BY DOING FOR DESIGN	EXPLAIN
SPRINGS	✓	✓	✓	✓	✓	✓	✓	✓	✓
TORSION BAR	✓	✓	✓	✓	✓	✓			
FRONT WHEELS	✓	✓	✓	✓	✓	✓	✓	✓	✓
THE BEAMER	✓	✓	✓	✓	✓	✓	✓	✓	✓
TORSION WINGS	✓	✓	✓	✓		✓	✓	✓	✓
LETTER BEAMER	✓	✓	✓						
CLACK CLACK	✓	✓	✓	✓		✓		✓	
PHONICS	✓	✓	✓	✓					
LEAF TRACK	✓	✓	✓	✓					
STEAMROLLER	✓	✓	✓	✓		✓	✓	✓	✓
POWER CAR	✓	✓	✓	✓		✓	✓	✓	✓
BRAGGOTS	✓	✓	✓	✓		✓	✓	✓	✓
TOP WAGON	✓	✓	✓	✓		✓	✓	✓	✓
BOILER	✓	✓	✓	✓		✓	✓	✓	✓
STEAM PISTONS	✓	✓	✓	✓		✓	✓	✓	✓
THE MAGIC JACK	✓	✓	✓	✓					
SLAMMING CARTERS	✓	✓	✓	✓					
BULLET	✓	✓	✓	✓		✓	✓	✓	
THE LIFTER	✓	✓	✓	✓		✓	✓	✓	
THE BOT	✓	✓	✓	✓		✓	✓	✓	

**Lego Based Curriculum**

**Example for Ages 6 to 9**



Above is a matrix of representative concepts that are learnt by students as part of a Lego engineering and STEM course. This is taught to students Ages 6-9

The following page shows a matrix of concepts that are learnt by students as part of the Robotics Engineering course. This is taught to students Ages 9-14

ROBOTICS ENGINEERING 1 PROJECTS AND INVESTIGATIONS (SCIENCE AS INQUIRY)	IDENTIFY QUESTIONS TO BE ANSWERED	DESIGN AND CONDUCT INVESTIGATIONS	USE TOOLS AND TECHNIQUES TO GATHER AND INTERPRET DATA	DEVELOP DESCRIPTIONS, EXPLANATIONS, AND MODELS USING EVIDENCE	THINK CRITICALLY AND LOGICALLY TO MAKE RELATIONSHIPS BETWEEN EVIDENCE AND EXPLANATIONS	RECOGNIZE AND ANALYZE ALTERNATIVE EXPLANATIONS AND PREDICTIONS	COMMUNICATE SCIENTIFIC PROCEDURES AND EXPLANATIONS
<b>Example for Ages 9 to 14</b>							
FULL SPEED AHEAD	✓			✓	✓		✓
RIGHT FACE				✓	✓	✓	
CLAP ON, CLAP OFF	✓			✓	✓	✓	
FOLLOW THE GUIDELINES	✓			✓	✓	✓	✓
OBSTACLE DETECTION	✓	✓	✓	✓	✓	✓	
GET IN GEAR	✓	✓	✓	✓	✓	✓	
WHEELS AND DISTANCE	✓	✓	✓	✓	✓	✓	✓
MEASURED TURNS	✓	✓	✓	✓	✓	✓	✓
FREQUENCY VS. AMPLITUDE	✓	✓	✓	✓	✓	✓	✓
FASTER LINE TRACKING	✓	✓	✓	✓	✓	✓	✓
FIELD OF VIEW	✓	✓	✓	✓	✓	✓	✓
GEARS AND SPEEDS	✓	✓	✓	✓	✓	✓	✓
HELLO MY NAME IS	✓	✓	✓	✓	✓	✓	
FULL STOP	✓				✓	✓	✓
RAMP IT UP	✓	✓		✓	✓	✓	✓



**Now is the time to  
get it done !**

We want to help people by making their aspiration of offering a fun STEM program come true. What we offer is a proven solution .

Educating young children is a rewarding endeavor. That is why I founded Science Cosmos, with a mission is to help individuals inspire and motivate kids while preparing them for a future in STEM. Coming form a science and healthcare background I was convinced that a program such as this could inspire thousands of students.

I hope you can take advantage of this exciting tool and experience the rewards of inspiring and preparing young minds for a future in STEM.

*Thank you !  
- Ramesh Rao  
Founder*

# Pricing plans to help you be cost efficient \$\$



## **BASIC PLAN** **\$890/YEAR**

5 seats  
2 Admin Seats.

*Avg per student cost*  
**\$14.83/mo**

Online user training.

One on one teacher training is additional.

Short term seats can be added at \$25/seat

## **SILVER PLAN** **\$1980/YEAR**

15 seats  
4 Admin Seats.

*Avg per student cost*  
**\$10.99/mo**

Online user training.

5 hours One on one training included.

Short term seats added at \$19/seat

## **GOLD PLAN** **\$2690/YEAR**

25 seats  
6 Admin Seats.

*Avg per student cost*  
**\$8.97/mo**

Online user training.

10 hours One on one teacher training included.

Short term seats added at \$15/seat



# Action PLAN

**WHAT YOU  
SHOULD DO  
NEXT**

- 1** SETUP A PERSONAL WEBINAR
- 2** DISCUSS WHICH PRICING PLANS BEST FITS YOU
- 3** CHAT VIA PERSONAL TEXT WITH OUR TEAM TO GET STARTED (703) 828-7085



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