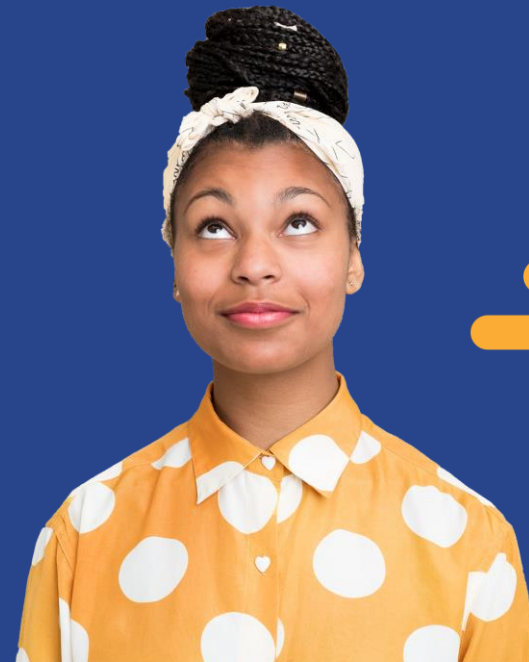# Build the Future

Computer Science at Saint John's Catholic Prep through Amazon Future Engineer

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amazon

Teacher:
Mrs. Seaman

Google Classroom Code:

buh5bxc

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Amazon is helping fund computer science at our school to help inspire, encourage and support <u>your child</u> to learn computer science and coding.

Introduction to

- Coding Language: Python

to

- No CS prerequisites.

Computer Science

- Algebra I preferred.

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Upon successful completion of this course, your child will:

- Have the basic technical vocabulary of computer science.
- Understand basic principles of thinking and solving problems with computers and computation.
- Be able to use fundamental elements of computer programs, such as commands, variables, conditionals, and loops.
- Understand the representation of data in computer memory.
- Design, plan, implement and test programming projects.
- Be able to use principles of programming to write and edit musical compositions in EarSketch.

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- We will access materials through Edhesive-- which is a Canvas based learning platform with units of study called modules (I will get them set up.)
- All coding will be submitted through an IDE (integrated development environment)called the Sandbox
- There are videos, practice, quizzes, tests, and extension opportunities
- Example of the platform on next slide

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edhesive

Intro to CS Term 1 (ecd645)

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Intro to CS - Term 1 (2020-21)

WELCOME TO
Intro to Computer Science

From the time you wake up in the morning until you go to sleep at night, technology is all around you. We often take it for granted!

The food on your table came from a farm that may be using the latest in GPS technology to help farmers maximize the yields of their crops. The messaging app you use to chat with your friends is built from complex code that makes it work. The cars on the street outside have computers inside them, determining the perfect mix of fuel and oxygen to maximize fuel economy, and have sensors which keep your brakes from locking up if you hit the pedal too hard.

Technology is everywhere: roller coasters, elevators, traffic signals, and even refrigerators. The fact that everything works may seem like magic - but the magic that

⊚ Choose Home Page

View Course Stream

⑦ Course Setup Checklist

New Announcement

Student View

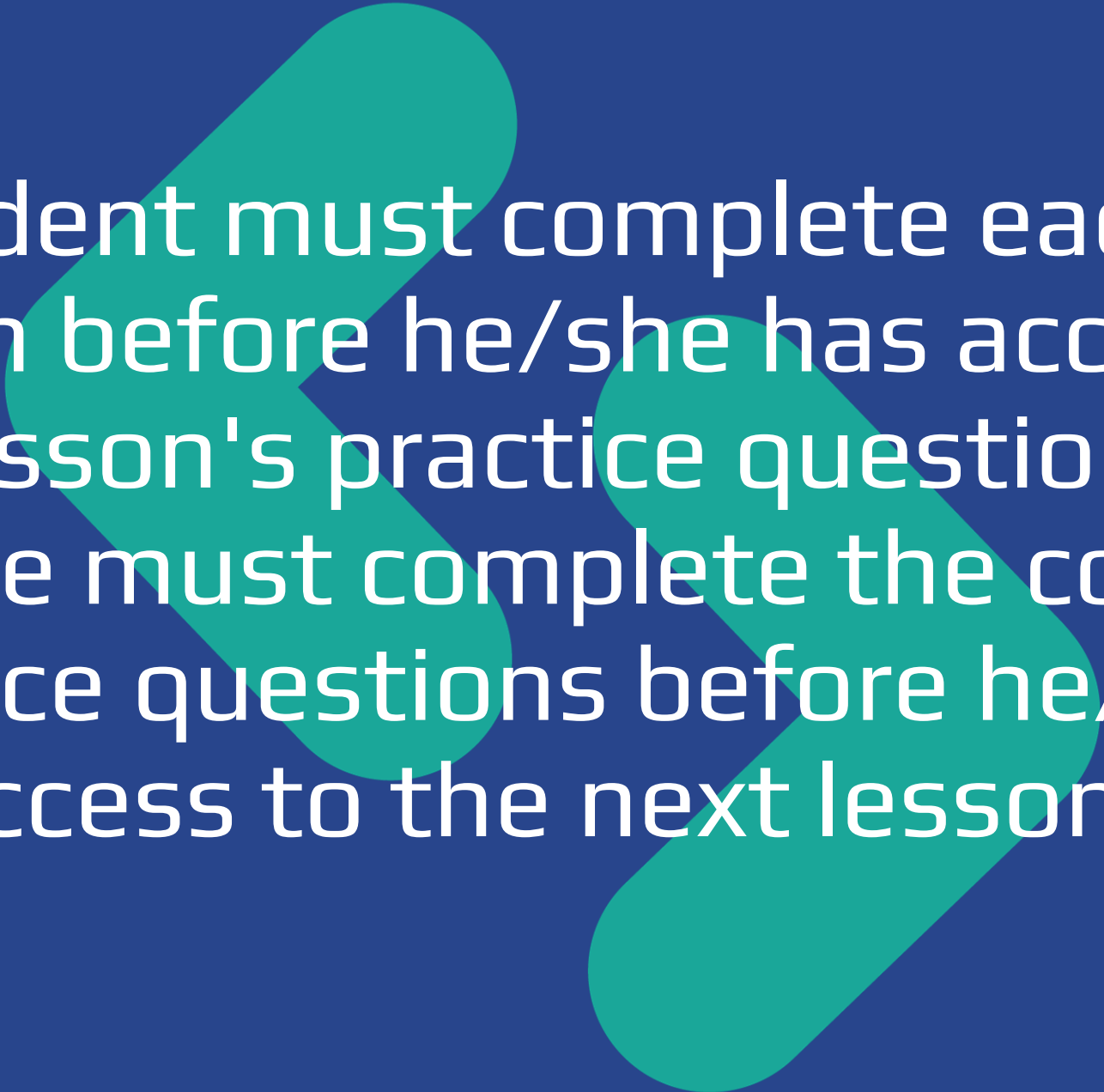Join New Class

Coming Up   View Calendar

Nothing for the next week

A typical instructional week will include:

- **Video Lessons:** Many videos in the course are "code along", and you will be asked to follow along with Mrs. Dovi as she codes. When she tells you to pause the video and try a problem yourself, pause the video and give it a try!
- **EarSketch Connections:** Within many lessons in this course, you'll see EarSketch connections that draw on your new Python skills, and apply them to the art of making music. These connections allow you to play music samples directly in the Edhesive course.
- **Lesson Practice:** After most lessons, there will be a series of multiple choice and fill in the blank questions. These are graded lesson practice questions.
- **Code Practice:** After most lessons, there will be a series of code practice questions. These are also graded
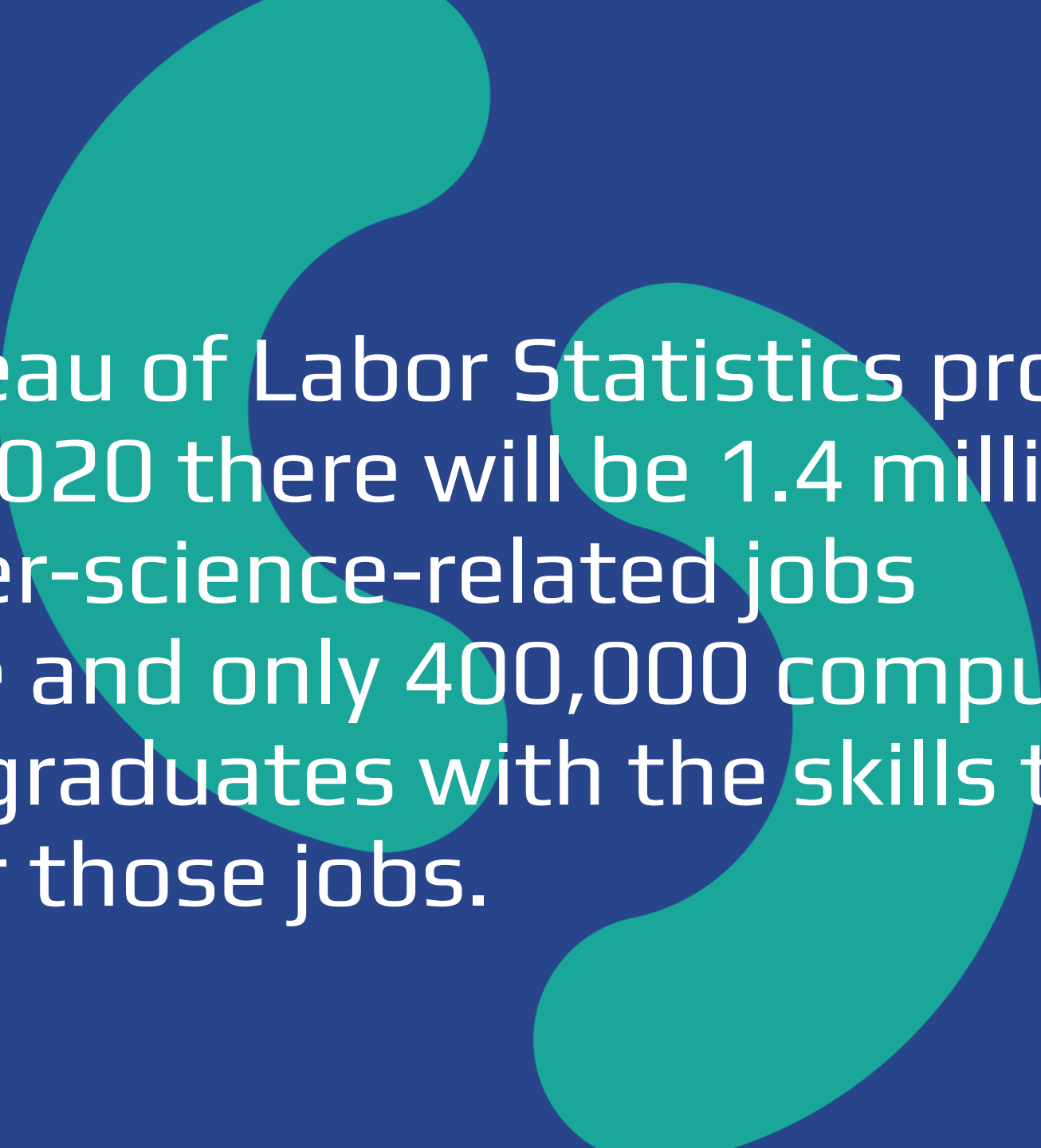
Grading Policy:

- **Practice Activities (20%)**
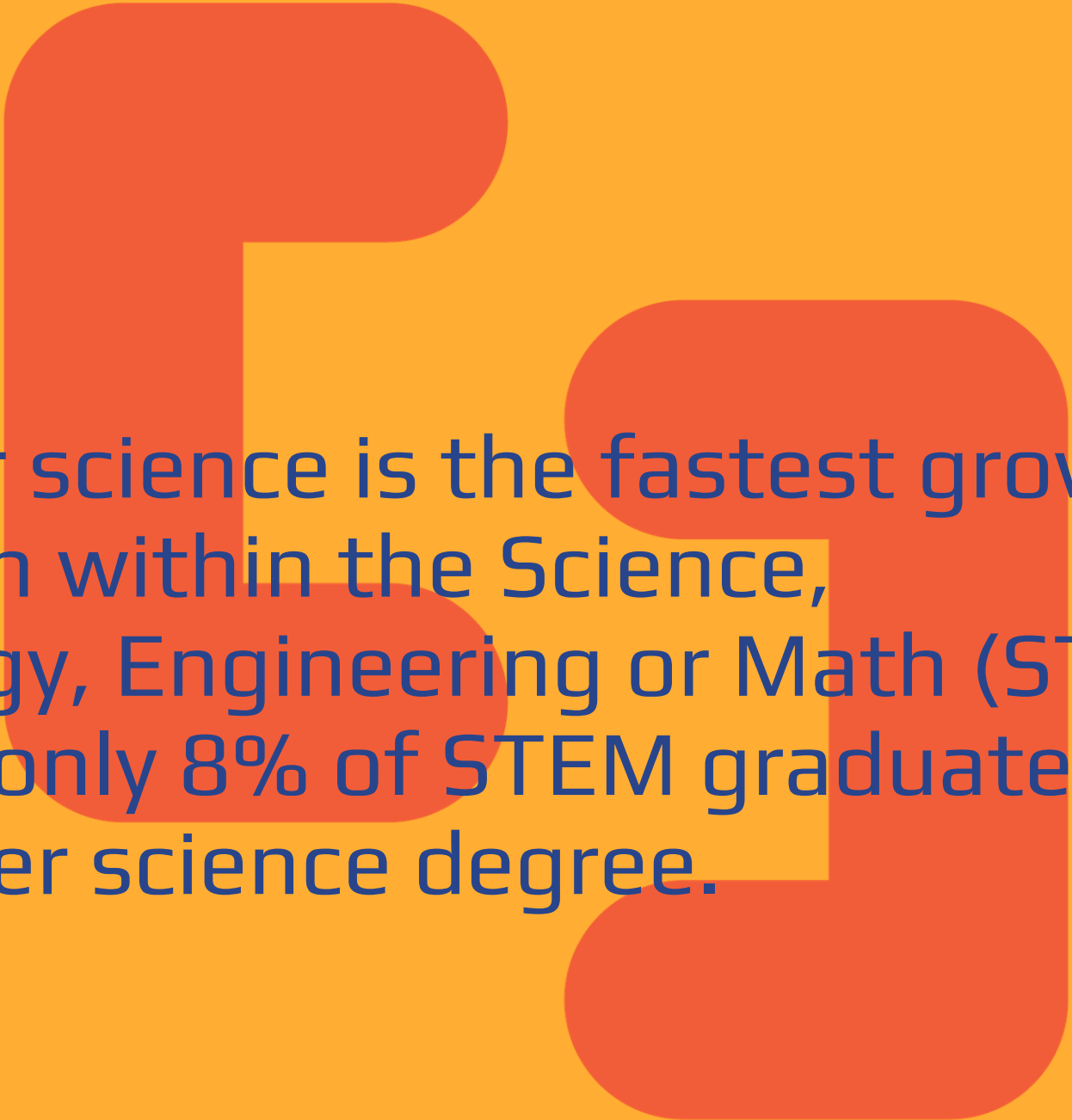
- **Assignments and Quizzes (40%)**

- **Tests (40%)**

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A student must complete each lesson before he/she has access to the lesson's practice questions, and he/she must complete the code practice questions before he/she has access to the next lesson.
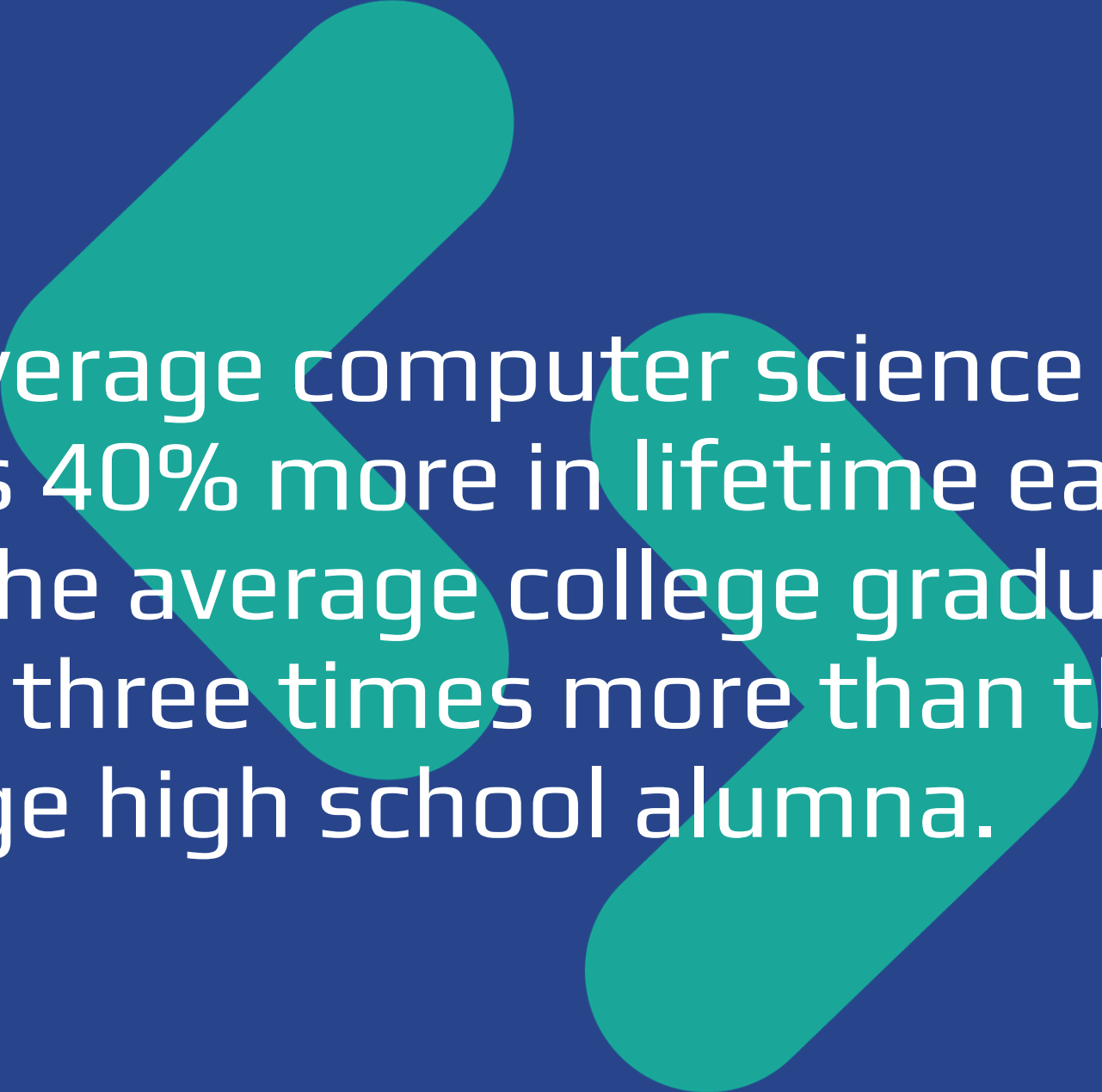
Computer Science Facts

The Bureau of Labor Statistics projects that in 2020 there will be 1.4 million computer-science-related jobs available and only 400,000 computer science graduates with the skills to apply for those jobs.

Computer science is the fastest growing profession within the Science, Technology, Engineering or Math (STEM) field, but only 8% of STEM graduates earn a computer science degree.

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The average computer science major makes 40% more in lifetime earnings than the average college graduate and nearly three times more than the average high school alumna.
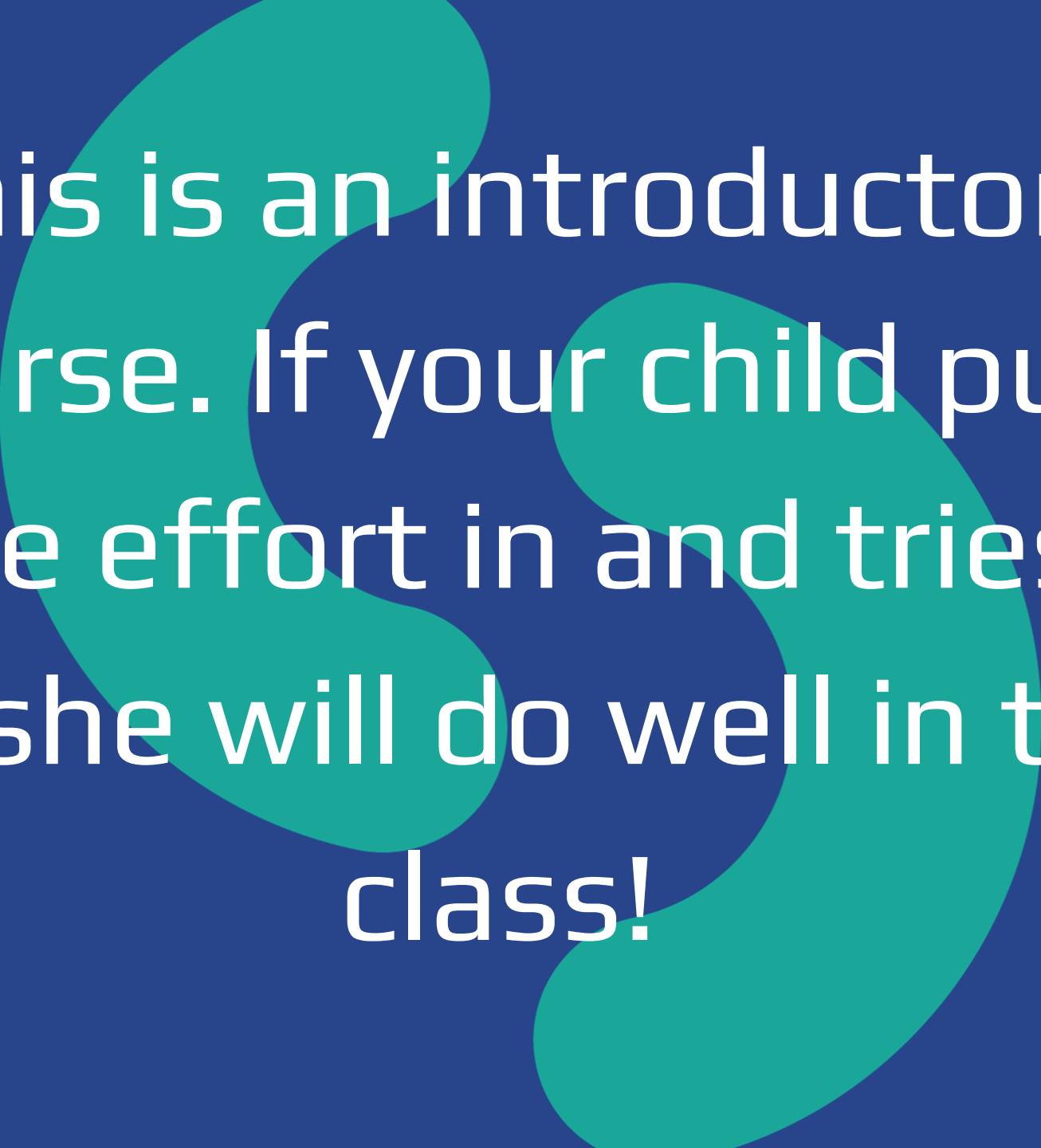
The national average of worker's wages in 2019 was $47,060. An average salary for a software developer in 2018 was $105,590.

The field is more than science and math. The degree requires strong problem-solving abilities and analytical skills.

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Possible careers:

- data scientist
- systems analyst
- web developer
- gaming
- software engineer
- information systems
- animation
- cybersecurity
- artificial intelligence
- application developer

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This is an introductory course. If your child puts the effort in and tries, he/she will do well in this class!

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