Through our children’s eyes

Actual quotes from children

I think therefore…. I get a headache
We have nothing to fear but…. Homework
The squeaking wheel…. Gets annoying
Never put off until tomorrow what…. You should have done yesterday
A penny saved is…. nothing in the real world
If you can’t stand the heat…. Go swimming
It’s always darkest just before…. I open my eyes
It’s better to light one candle than to…. Waste electricity
A bird in the hand…. Is a real mess
The grass is always greener…. When you remember to water it
If at first you don’t succeed…. get new batteries
Laugh and the whole world laughs with you, cry and…. You have to blow your nose
You can’t teach an old dog new…. Math
Don’t bite the hand that…. Looks dirty
Never under estimate the power of…. Termites
Strike while the…. Bug is close
As you make your bed so shall you…. Mess it up
Hawai‘i’s Career Pathway System

Something for Everyone!

- Arts and Communications
- Business, Management, and Technology
- Health Services
- Industrial and Engineering Technology
- Natural Resources
- HELPSS - Human Services, Education, Legal & Protective Services, Social Sciences, and Service & Hospitality
The Presentation

• The Concept
• The Need
• The Design
• The Challenges

Developed in partnership with
Office of the State Director for Career and Technical Education, The University of Hawai‘i
Career Pathways

The Concept

DOE
UH
DLIR
OSDCTE

designed through partnerships
Career Pathways

The Concept

- Continuous career development
- Industry standards
- Applied and work-based curriculum
- Performance based assessments
- Articulated programs of study

A systematic approach to career development that extends from preschool to life-long learning
The Concept

- increase degree attainment/increase lifetime earnings
- minimize the cost of education and time to completion
- build on prior learning without remediation and repetition
- create a seamless transition between high school and the University of Hawaii

Focus on students
## The Need

<table>
<thead>
<tr>
<th>Metric</th>
<th>Georgia Univ. System</th>
<th>K-16 System</th>
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<td>Students w/ SAT 1500-1600 Attending post-secondary in GA</td>
<td>25%</td>
<td>76%</td>
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<tr>
<td>Average SAT score</td>
<td>900</td>
<td>1030</td>
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<tr>
<td>High School students enrolled in college prep programs of study</td>
<td>70%</td>
<td>90%</td>
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<tr>
<td>Remediation rate</td>
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### The Need

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<td>15%</td>
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</table>
The Need

Kauai High School Graduate

SAT Verbal 460, Math 530

Pursuing a Nursing degree

Following the traditional path:

Total additional time for program completion:

2 years

Total additional tuition cost: $172 - $559
Career Pathways

The Design

Occupations → Occupational Frameworks → Industry Expectations
- Certifications & Standards
  - Economic Drivers
  - Academic & Technical Standards

Curriculum Development & Performance Assessment
- Project/Problem based learning
- Work-based learning

DOE UH OSDCTE DLIR Employers Organizations & Programs

Developed collaboratively
Career Pathways

The Design

Programs of Study

Articulated & Coordinated Academic & Technical Courses

Dual Credit Courses

Advanced Placement & Early Admit Courses

Exit points into Employment

Entry points from Employment into Education

DOE  UH  OSDCTE  DLIR  Employers

Developed collaboratively

Organizations & Programs
In a world of possibilities, explore...

ARTS AND COMMUNICATIONS

Why sing in the shower, when all the world’s a stage?

Consider this!
Do you like to dance?
Enjoy performing before a group?
Like sharing ideas and information with others?
Enjoy expressing ideas in art?
Enjoy activities that require imagination?

RIASEC Codes for this Career Pathway:
A and E some R

Careers That Need a High School Diploma + Training

- Framer
- Graphic Assistant
- Production Assistant
- Singer/Dancer
- Illustrator
- Slidemaker

Careers That Need 2–3 Years Postsecondary Education + Training

- Visual Effects Artist
- Hair Stylist
- Radio Announcer
- Art Restorer
- Exhibit Curator
- Videographer/Camera Person

Careers That Need a 4-Year or Graduate Degree

- Gallery Administrator
- Fine Arts Teacher
- Master Animator
- Museum Director
- Publisher
- Producer
<table>
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<tr>
<th>Core</th>
<th>Occupational Cluster</th>
<th>Occupational Concentration</th>
<th>High School Diploma + Training</th>
<th>2-3 years Post-secondary + Training</th>
<th>4-Year or Graduate Degree</th>
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<td>Painter, Photographer, Illustrator, Cartoonist, Weaver, Muralist, Collagist, Print Maker, Arts Educator</td>
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<td>Historic Preservation/Restoration</td>
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<td>Art History</td>
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<td>Fashion Arts &amp; Technologies</td>
<td>Cosmetology</td>
<td>Make up Artist, Hair Stylist</td>
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<td>Fashion Design</td>
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<td>Performing Arts</td>
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<td>Actor, Stand Up Comic, Lighting Designer, Set Designer/Construction</td>
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<td>Music</td>
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<td>Choreographer, Dancer</td>
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<td>Written Arts</td>
<td>Audio &amp; Visual (broadcasting)</td>
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<td>Radio Announcer</td>
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<td>Video/Film/Audio/Sound Editor, Videographer/Camera Person</td>
<td>Director, Producer, Art/Creative</td>
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<td>Web Designer, Graphic Artist, Illustrator</td>
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<td>Graphics Technologies</td>
<td>Basic Technical Operator (press bindery)</td>
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<td>Animation</td>
<td>Production Asst., Illustrator</td>
<td>Operations (press, bindery, pre-press), Sales</td>
<td>Graphic Designer, Creative/Art</td>
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<td></td>
<td>Visual Effects Artist, Modeling &amp; Textual Artist, Digital Matte Painter</td>
<td>Master Animator, Creative/Art</td>
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</tbody>
</table>
In a world of possibilities, explore...

BUSINESS, MANAGEMENT, AND TECHNOLOGY

Why take the common path, when you're so good with common “cents”?

Consider this!

Do you enjoy working with numbers?
Like to talk with a variety of people?
Like to analyze and compare things?
Enjoy working with computers?
Like to manage and multi-task?

RIASEC Codes for this Career Pathway: E and C, some I

Careers That Need a High School Diploma + Training
- Car Rental Clerk
- Cashier
- Data Entry Clerk
- Bank Teller
- Retail Salesperson

Careers That Need 2–3 Years Postsecondary Education + Training
- Accounting/Statistical Clerk
- Administrative Assistant
- Computer Networking and Support
- Transportation Manager
- Records manager

Careers That Need a 4-Year or Graduate Degree
- Public Administrator
- Construction Manager
- Financial Planner
- Marketing Manager
- Human Resources Director
- Accountant

[Image of a CD, a calculator, and money]
<table>
<thead>
<tr>
<th>Core</th>
<th>Occupational Cluster</th>
<th>Occupational Concentration</th>
<th>High School Diploma + Training</th>
<th>2-3 years Post-secondary + Training</th>
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<tbody>
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<td>Financial Management</td>
<td>Accounting, Taxes</td>
<td>Account Clerk</td>
<td>Bookkeeper</td>
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<td>Electronic Tax Filer</td>
<td>Tax Preparer</td>
<td>Tax Accountant</td>
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<td>Management</td>
<td>Event/Conference Planning, General Management</td>
<td>Teller</td>
<td>Mortgage Broker</td>
<td>Bank Manager</td>
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<td>Human Resource Management, Travel Industry Management</td>
<td>Human Relations Clerk</td>
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<td>Entrepreneur</td>
<td>Entrepreneur</td>
<td>Benefits Specialist</td>
<td>Investment Analyst</td>
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<td>Management Information Systems</td>
<td>Hardware Administration, Network Administration, System Administration, Systems Analysis/Programming</td>
<td>Network Technician</td>
<td>Network Architect</td>
<td>Hardware Administrator</td>
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<td>Advertising, Distribution, Marketing Research, Product/Brand Management, Public Relations, Retail Merchandising, Sales</td>
<td>Telemarketer, Inventory Clerk</td>
<td>Application Developer</td>
<td>Chief Technology Officer</td>
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<td>Office Administration &amp; Technology</td>
<td>Information Processing, Records &amp; Information Management</td>
<td>Cashier, Sales Associate</td>
<td>Buyer</td>
<td>Data Analyst/Statistician</td>
</tr>
</tbody>
</table>

**Business, Management, and Technology**
In a world of possibilities, explore...

INDUSTRIAL AND ENGINEERING TECHNOLOGY

Why hang out at the mall, when you can design one?

Consider this!
Do you like working with objects and machines?
Like using tools and equipment?
Enjoy activities that require creativity?
Like to visualize objects in three dimensions?
Enjoy working with scientific and technical data?

RIASEC Codes for this Career Pathway:
R and I some C

Careers That Need a High School Diploma + Training
- Service Attendant
- Carpenter Assistant
- Cable Installer
- Drafting Aide
- Welding Apprentice

Careers That Need 2–3 Years Postsecondary Education + Training
- Electronic Technician
- Operations Manager
- Drafting Technician
- Electrician
- Automotive Mechanic
- Networking Technician

Careers That Need a 4-Year or Graduate Degree
- Civil Engineer
- Architect
- Electonical Engineer
- Atmospheric Scientist
- Software Engineer
- Systems Engineer
<table>
<thead>
<tr>
<th>Core</th>
<th>Occupational Cluster</th>
<th>Occupational Concentration</th>
<th>High School Diploma + Training</th>
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<td>Architecture</td>
<td>Drafting Aide</td>
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<td>Atmospheric Scientist</td>
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<td>Airframe/Powerplant Mechanic</td>
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<td>Apprentice</td>
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</table>
In a world of possibilities, explore...

HEALTH SERVICES

Why punch a clock, when you can keep the human body ticking?

Consider this!

Do you enjoy working with people?
Like to research and analyze statistics?
Find anatomy and biology intriguing?
Enjoy the study of dietetics and nutrition?
Enjoy a fast-paced environment?

RIASEC Codes for this Career Pathway:
R and S some C, I

Careers That Need a High School Diploma + Training
- Nurse’s Aide
- Ward Clerk
- Dental Assistant
- Medical Transcriptionist
- Phlebotomist
- Pharmacy Technician
- Home Health Aide

Careers That Need 2-3 Years Postsecondary Education + Training
- Licensed Practical or Associate Degree Registered Nurse
- Medical Assistant
- Physical or Occupational Therapist Assistant
- Radiological Technologist
- Medical Laboratory Technician
- Respiratory Therapist

Careers That Need a 4-Year or Graduate Degree
- Physician
- Audiologist
- Athletic Trainer
- Bachelor of Science Registered Nurse
- Nutritionist
- Dental Hygienist
- Radiologist
<table>
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<td>Cardiopulmonary Technician</td>
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<td>Phlebotomist</td>
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<td>Athletic Trainer</td>
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<td>Health Plan Administrator</td>
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<td>Repair &amp; Maintenance</td>
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</table>
In a world of possibilities, explore...

NATURAL RESOURCES

Why flip burgers, when you can feed the world?

Consider this!

Do you enjoy working outdoors?
Like hands-on activities?
Enjoy using physical strength?
Have math skills and economic knowledge?
Enjoy working alone sometimes?

RIASEC Code for this Career Pathway: R

Careers That Need a High School Diploma + Training
- Groundskeeper
- Nursery Worker
- Animal Caretaker
- Fish & Wildlife Technician
- Harvester
- Miller

Careers That Need 2–3 Years Postsecondary Education + Training
- Plant Propagator
- Fish and Game Warden
- Air and Water Quality Technician
- Field Technician
- Astronomical Equipment Mechanic
- Animal Breeder

Careers That Need a 4-Year or Graduate Degree
- Botanist
- Aquarium Manager
- Volcanologist
- Recycling Specialist
- Urban/Regional Planner
- Astronomer
- Zoologist
<table>
<thead>
<tr>
<th>Core</th>
<th>Occupational Cluster</th>
<th>Occupational Concentration</th>
<th>High School Diploma + Training</th>
<th>2-3 years Post-secondary + Training</th>
<th>4-Year or Graduate Degree</th>
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<tbody>
<tr>
<td></td>
<td>Environmental Quality</td>
<td>Environmental Assessment, Urban/Regional Planning, Environmental Law, Community Relations</td>
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<td></td>
<td>Petroleum Engineer, Researcher</td>
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<tr>
<td></td>
<td>Policy &amp; Planning</td>
<td></td>
<td></td>
<td></td>
<td>Green Waste Manager, Recycling Specialist, Sewage Treatment Plant Manager, City Planner, Urban/Regional Planner</td>
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<tr>
<td></td>
<td>Forestry</td>
<td></td>
<td></td>
<td></td>
<td>Conservation Biologist, Ecological Manager (Preservation &amp; Restoration), Ichthyologist, Oceanographer, Vector Control Specialist (Botanist, Entomologist, Zoologist)</td>
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<tr>
<td></td>
<td>Conservation &amp; Management</td>
<td>Marine Science, Fisheries, Invasive Species</td>
<td>Fish &amp; Wildlife Technician</td>
<td>Field Technician</td>
<td>Field Technician</td>
</tr>
<tr>
<td></td>
<td>Atmospheric &amp; Space Science</td>
<td>Astronomy</td>
<td>Astronomical Equipment Mechanic</td>
<td></td>
<td>Astronomer</td>
</tr>
<tr>
<td></td>
<td>Earth Sciences</td>
<td>Meteorology, Climatology, Soil Science, Geology, Hydrology, Oceanography, Coastal Management</td>
<td></td>
<td>Field Technician</td>
<td>Field Technician</td>
</tr>
<tr>
<td></td>
<td>Coastal &amp; Marine Science</td>
<td></td>
<td></td>
<td>Field Technician</td>
<td>Oceanographer</td>
</tr>
</tbody>
</table>
In a world of possibilities, explore...
Human Services, Education, Legal & Protective Services, Social Sciences, and Service & Hospitality (HELPSS)

Why follow the crowd, when you can lead it?

Consider this!
Do you enjoy speaking in front of groups?
Have good computer skills?
Think creatively?
Enjoy making decisions quickly?
Express yourself clearly?

RIASEC Codes for this Career Pathway: S and E, some A, I

Careers That Need a High School Diploma + Training
- Dining Room Attendant
- Front Desk Clerk
- Firefighter
- Fast Food Cook
- Bailiff
- Teacher Aide

Careers That Need 2–3 Years Postsecondary Education + Training
- Pre-School Teacher
- Human Service Worker
- Travel Guide
- Legal Assistant
- Geriatric Aide
- Pastry Chef

Careers That Need a 4-Year or Graduate Degree
- Lawyer
- Parks & Recreation Director
- Social Worker
- Teacher
- Psychologist
- Political Scientist
<table>
<thead>
<tr>
<th>Core Cluster</th>
<th>Occupational Concentration</th>
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<th>2-3 years Post-secondary + Training</th>
<th>4-Year or Graduate Degree</th>
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</thead>
<tbody>
<tr>
<td>Human Services</td>
<td>Clergy, Geriatrics, Psychology, Social Work</td>
<td>Personal Attendant</td>
<td>Pastoral Assistant, Geriatric Aide, Research Aide</td>
<td>Pastor, Geriatric Physician, Psychologist, Caseworker</td>
</tr>
<tr>
<td>Education</td>
<td>Administration, Curriculum &amp; Instruction, Guidance &amp; Counseling, Early Childhood Education</td>
<td>Administrative Clerk, Curriculum Aide, Counselor Aide, Teacher Aide</td>
<td>Teacher Assistant, Career Guidance Technician, Preschool Teacher</td>
<td>Principal, Teacher, School Counselor, Preschool Teacher</td>
</tr>
<tr>
<td>Legal &amp; Protective Services</td>
<td>Law Enforcement, Courts, Corrections, Private Security</td>
<td>Police Officer, Bailiff, Corrections Officer/Guard, Security Guard</td>
<td>Federal Park Police, Legal Assistant, Administrator</td>
<td>Federal Agent, Lawyer, Warden, Investigator</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>Anthropology, Economics, Geography, Political Science, Sociology, Special Studies, Regional Planning</td>
<td></td>
<td></td>
<td>Anthropologist, Economist, Geographer, Political Scientist, Sociologist, Teacher, Planner</td>
</tr>
<tr>
<td>Service &amp; Hospitality</td>
<td>Culinary Arts, Hotel Operations, Tourism</td>
<td>Dining Room Attendant, Front Desk Clerk, Travel Clerk</td>
<td>Chef, Concierge, Travel Guide</td>
<td>Trainer/Teacher Manager</td>
</tr>
</tbody>
</table>
The Challenges

**Traditional**
Students move between institutions in a sequential pattern

**Career Pathways**
Students are concurrently enrolled in several institutions

Building a seamless P-20 system
Building a seamless P-20 system

Career Pathways

The Challenges

Traditional

Programs are planned & executed within a single institution

Career Pathways

Programs are coordinated and articulated with appropriate institutions
Building a seamless P-20 system

The Challenges

Traditional
Curriculum is developed by individual faculty/teachers and endorsed by an advisory group

Career Pathways
Curriculum developed is based on industry defined standards, organized in an occupational framework
Building a seamless P-20 system

Career Pathways

The Challenges

Traditional

Student performance is measured through academic measures e.g. tests, papers, exercises

Career Pathways

Student learning is assessed through industry reflective projects & problems, and involves performance evaluation by working professionals
The Challenges

Traditional
Recruitment is largely a marketing activity

Career Pathways
Recruitment occurs through the development of student educational plans

Building a seamless P-20 system
Career Pathways

The Challenges

**Traditional**

A majority of high school graduates place into remedial and developmental reading, writing, and math.

**Career Pathways**

Students complete post-secondary courses while in high school.

Building a seamless P-20 system
Career Pathways

The Challenges

- Defining and aligning a comprehensive set of standards and student performance measures
- Coordinating and articulating programs
- Developing formally articulated programs of study
- Developing a sustaining infrastructure

One step at a time.....together

on November 13-14
Everything we need to know about life, we can learn from Noah’s Ark

1. Don’t miss the boat
2. Remember that we are all in the same boat
3. Plan ahead…it wasn’t raining when Noah built the Ark
4. Stay fit…when you’re 600 years old, someone may ask you to do something really big
5. Don’t listen to critics; just get on with the job that needs to be done
6. Build your future on high ground
7. For safety’s sake travel in pairs
8. Speed isn’t always an advantage, the snails were on board with the cheetahs
9. When you’re stressed, float a while
10. Remember, the Ark was built by amateurs; the Titanic by professionals
11. No matter the storm, there’s always a rainbow waiting