

LEARNING IN THE MAKING

HOW THE MAKER MOVEMENT
POWERS STEM SKILLS AND STUDENT CURIOSITY

65% OF TODAY'S PRIMARY SCHOOL STUDENTS
WILL END UP AT JOBS
THAT HAVEN'T BEEN INVENTED YET¹

... but the ratio of Australian students studying STEM subjects has **dropped to 10% or less**²

**"WHO NEEDS A PAPER
ROUTE WHEN YOU CAN START
A ROBOTICS COMPANY?"**

CAMILLE AND GENEVIEVE BEATTY
AGES 14 AND 12, CO FOUNDERS OF BEATTY ROBOTICS³

It's time for students to get
**excited about STEM—and making
is a great place to start.** Through
making, you can foster a new
generation of exploration, innovation,
and creativity that inspires and
empowers your students.

MAKE YOUR STUDENTS FUTURE READY

MAKING ENCOURAGES STUDENTS TO:



embrace
their mistakes



navigate their
own learning



experiment in
the classroom



free natural
curiosity

MAKING ADVANCES MODERN
SKILLS THAT HELP:

- Promote **educational equity**.
- Bridge the **digital divide and gender gap**.
- Create an **innovative culture**.

By 2020, **computing jobs will
outnumber computer science
students 3.5 to 1.**⁴

**"IN THE 21ST CENTURY,
MAKING IS THE BEST THING
SCHOOLS CAN DO TO PREPARE
STUDENTS TO SOLVE PROBLEMS."**⁵

| GARY STAGER, PH.D.

WHAT WILL YOU MAKE OF THE MOVEMENT?

MAKING ENABLES EDUCATORS TO:



embrace
project-based learning



foster critical thinking
and collaboration



use technology to
enrich STEM education

**"THE MAKER MOVEMENT
HAS CREATED OPPORTUNITIES FOR
ALL EDUCATORS TO ... RE THINK
TRADITIONAL LEARNING
ENVIRONMENTS TO INCLUDE ...
CREATIVITY AND INNOVATION THAT
WILL BENEFIT OUR STUDENTS BOTH
IN SCHOOL AND BEYOND."**

LAURA FLEMING
Author, *Worlds of Making: Best Practices for
Establishing a Makerspace for Your School*

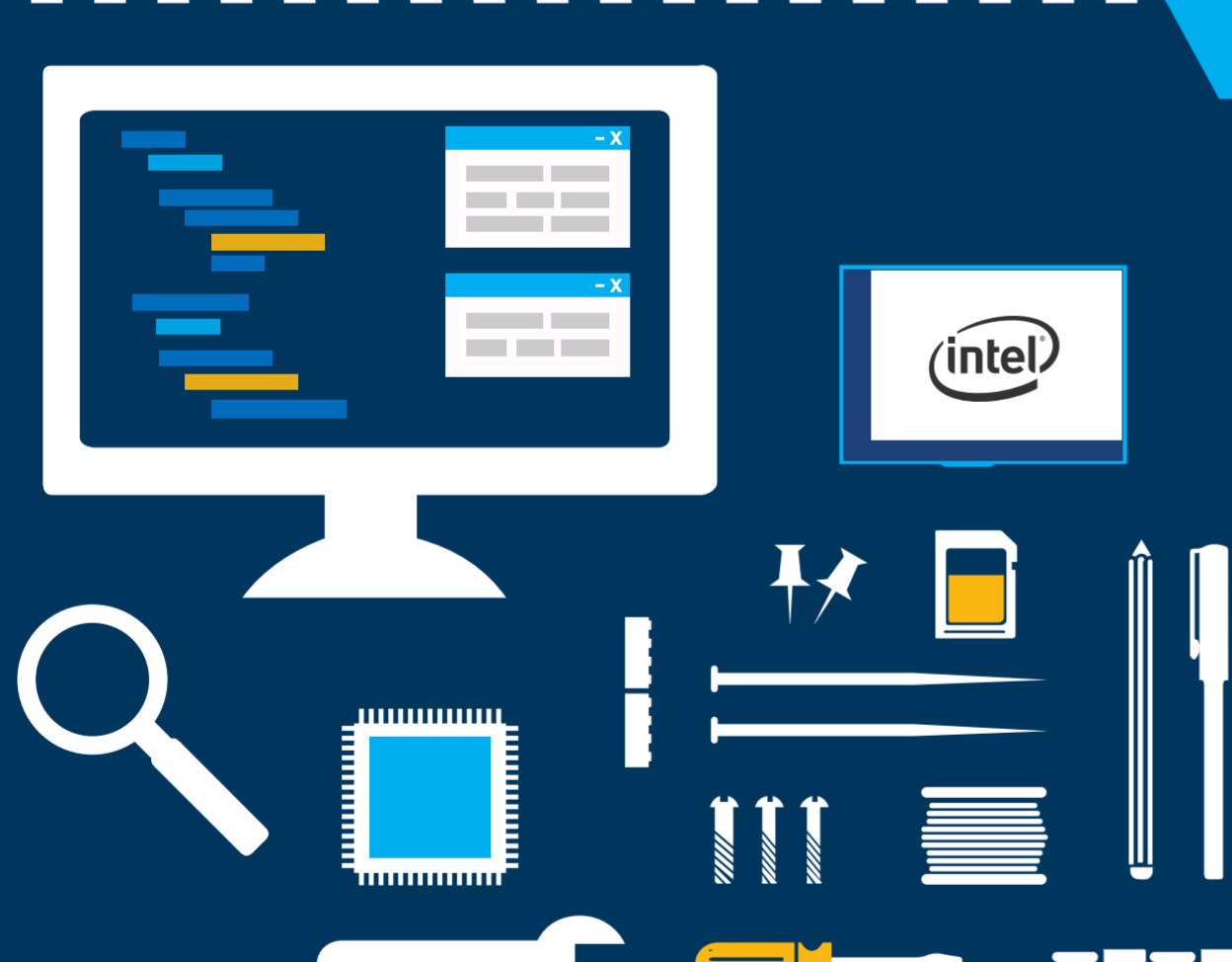
**2013 BROUGHT
100 MAKER FAIRE* EVENTS
AROUND THE WORLD
WITH OVER
530,000
ATTENDEES**⁷

START SOMEWHERE:

- Adopt a **supportive maker mindset**.⁶
- Explore **hands-on professional learning**.
- Work with students **to reimagine the curriculum**.
- Take risks **on new teaching methods**.

Introducing maker activities can
activate **25,000 aspiring
makers from underrepresented
groups over 2 years**.⁸

CREATE A MAKERSPACE



COMPUTERS
INTEL® GALILEO AND EDISON
ARDUINO* BOARDS
3-D PRINTER AND LASER CUTTER
PROGRAMMING, DESIGN, AND
PRODUCTION SOFTWARE
SIMPLE TECH SUCH AS CIRCUIT PENS,
CONDUCTIVE THREAD, AND MODULES
BASIC MATERIALS SUCH AS PAPER,
PENS, AND KNITTING NEEDLES

MAKING YOUR MARK ON THE FUTURE



build future success
through STEM



cultivate lifelong learning
and creativity



boost
our global economy

75%
of the fastest growing
jobs **require STEM skills**⁹

70%
of Australian employers regard
their STEM staff among their
most innovative¹⁰

LEARNING BY MAKING EMPOWERS YOUR STUDENTS
TO BECOME INNOVATORS AND THRIVE AS ENTREPRENEURS
FOR SUCCESS IN A MODERN STEM WORLD.

Join the maker movement now and
begin transforming education with Intel.
Visit innovationtoolbox.intel.com.au.

intel Education

¹ <http://visual.ly/envisioning-future-education-technology>

² <http://www.aigroup.com.au/portal/binary/com.epicentric>

³ http://www.ssi.intel.com/content/dam/ssw/ContentDeliveryServices/LIVE_CONTENT/Publications/Reports/2015/14571_STEM%2520Skills%2520Report%2520Final%2520.pdf

⁴ https://www.ssi.intel.com/content/dam/ssw/ContentDeliveryServices/LIVE_CONTENT/Publications/Reports/2015/14571_STEM%2520Skills%2520Report%2520Final%2520.pdf

⁵ <http://t.co/CGhnHYyUWw>

⁶ http://innovationtoolbox.intel.com.au/wp-content/uploads/2015/05/18009_IntelEdu_Guide2Making_FA_LR_singles.pdf

⁷ <http://makezine.com/2014/01/01/the-year-of-100-maker-faires/>

⁸ https://www.ssi.intel.com/content/dam/ssw/ContentDeliveryServices/LIVE_CONTENT/Publications/Reports/2015/14571_STEM%2520Skills%2520Report%2520Final%2520.pdf

⁹ http://www.chiefscientist.gov.au/wp-content/uploads/STEM_AustraliasFuture_Sept2014_Web.pdf

¹⁰ http://www.chiefscientist.gov.au/wp-content/uploads/STEM_AustraliasFuture_Sept2014_Web.pdf

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