

HOW TO IMPROVE YOUR STUDENT'S RESULTS WITH MAKER SPACES

An Account of Teaching Excellence and Practical Constructionism.

DAVE CATLIN

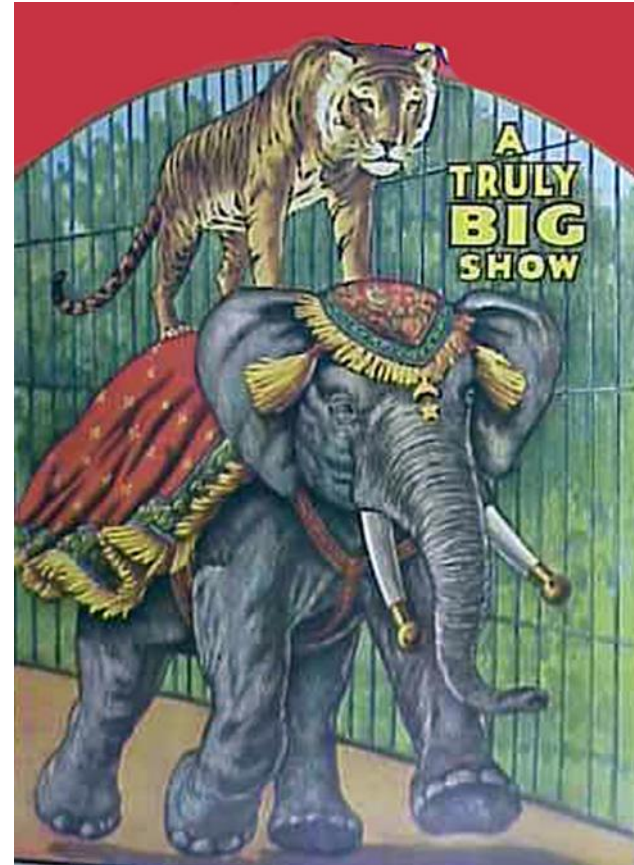
CONSTRUIT 2017
Warwick University, England
May 20-22, 2015

FLEET CIRCUS

Fleet Wood School
Spalding, Lincolnshire
1998

Research:

- **Account**
- **Ex-Post Facto**
Co-Relational Study



BACKGROUND



SEYMOUR PAPERT

- **Constructivism**
- **Turtle Robots**
- **Plowden Report
(1967)**



ISSUES

○ **A Conundrum**

- Wishy-Washy
- No Focus

○ **The Black Papers**

- Ideological
- Training versus Education

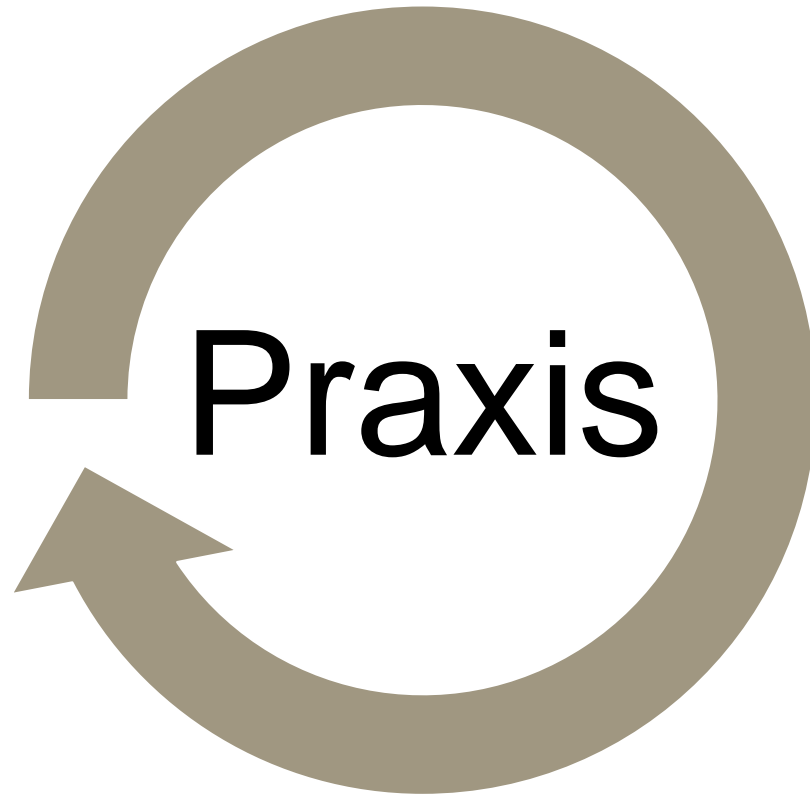
○ **Anti-Constructivism Rhetoric**

- We need to instruct children
- Knowledge acquisition precedes critical thinking

○ **Constructivist Response**

- [Constructivism] does not call into question the value of instruction... that would be silly. *Seymour Papert*

GETTING IT RIGHT



- Theory
- Action
- Reflection

TREVOR THOMSON

- **Fleet Wood School**
- **Design Technology Show 1998**
- **Year 6 (10 to 11 years old)**



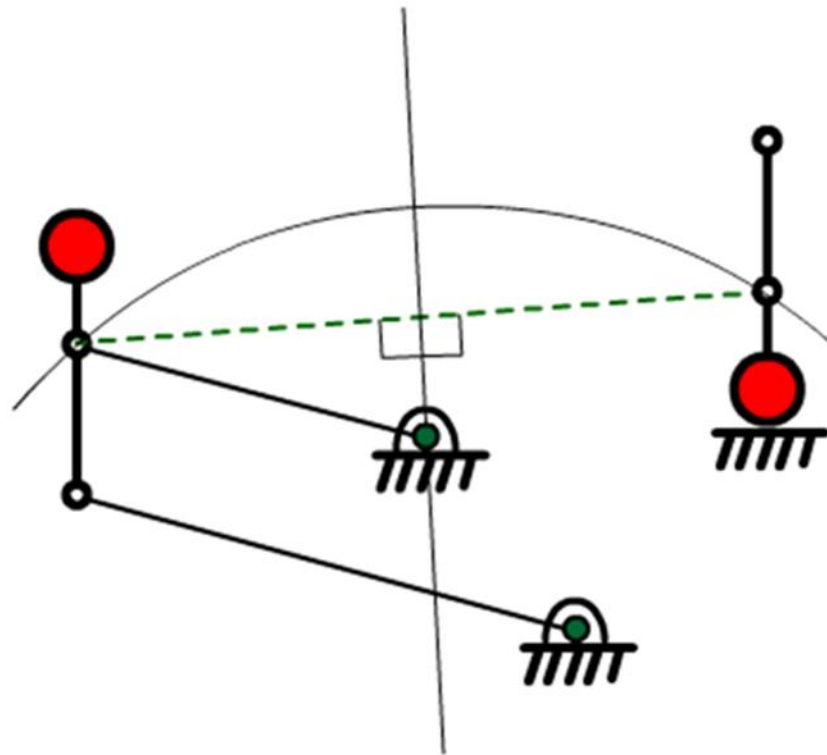
D&T AND MAKER SPACES



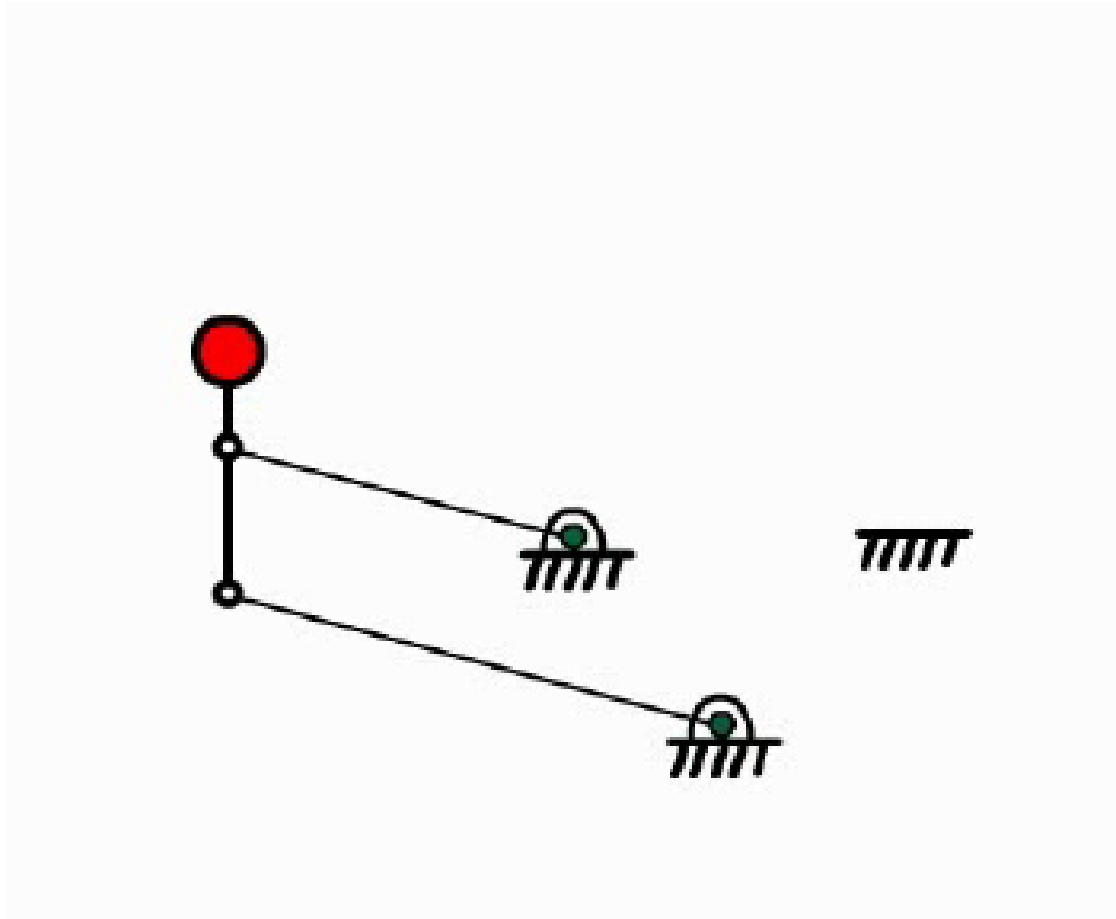
COPING WITH IMAGINATION



4 – BAR LINK MECHANISM



4 – BAR LINK MECHANISM



GRANNY'S GREAT LEAP



JUGGING JOEY



WHY A CIRCUS?



HANDSTAND



BOTTLE BALANCING BERTIE



NICK THE KINFE



HUMAN CANNONBALL



ZOETROPE

"We made the trapeze artist using a zoetrope. We found out about these from our history lessons."

Katie Harding



TRAPEZE ARTIST



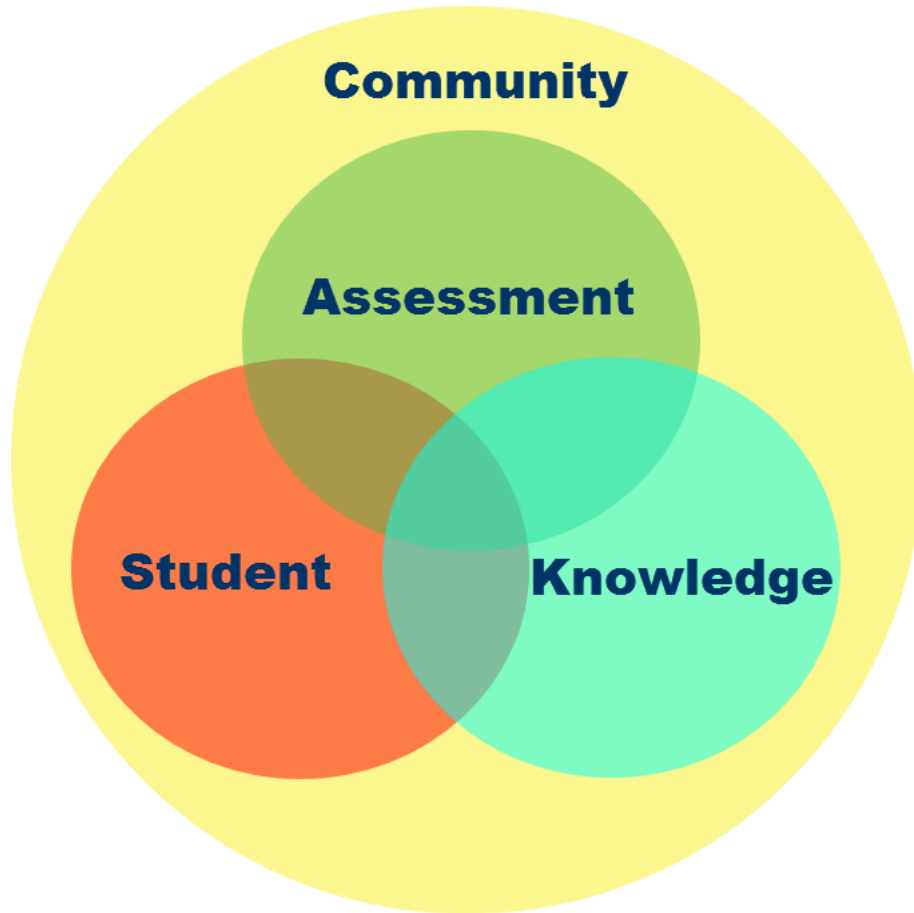
HOMework

"I always set a simple task as an homework assignment. This guarantees parental involvement. Friends, neighbours all sorts of people help. Not only do people pass on knowledge to the kids, but it draws the community into the school".

Trevor Thompson



LEARNING ENVIRONMENT

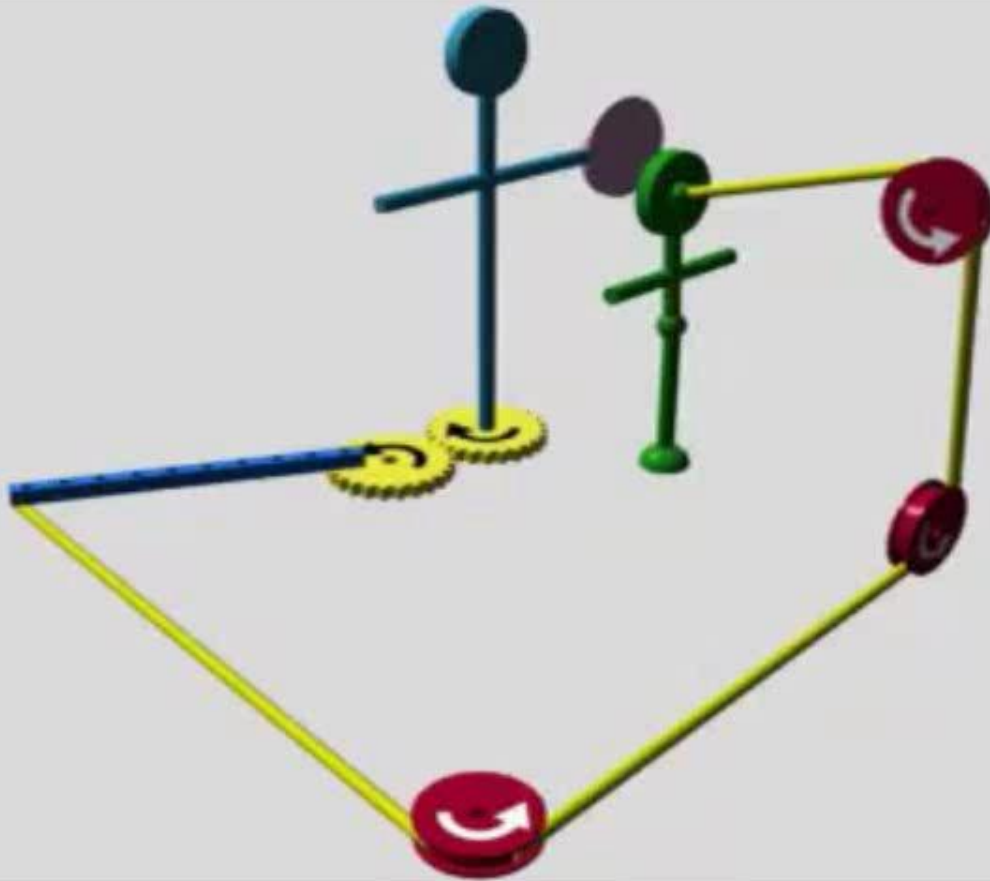


How People Learn,
Bransford et. al.

D&T EXHIBITION



D&T EXHIBITION



TRIP TO THE CIRCUS

“... It was incredible to see how the girl balanced on a ladder, which was on the shoulders of a man. They threw a cup and saucer up in the air. She caught them on her head, without using her hands. We all clapped...”

Essay Anne Horrell



LETTERS AND POEMS

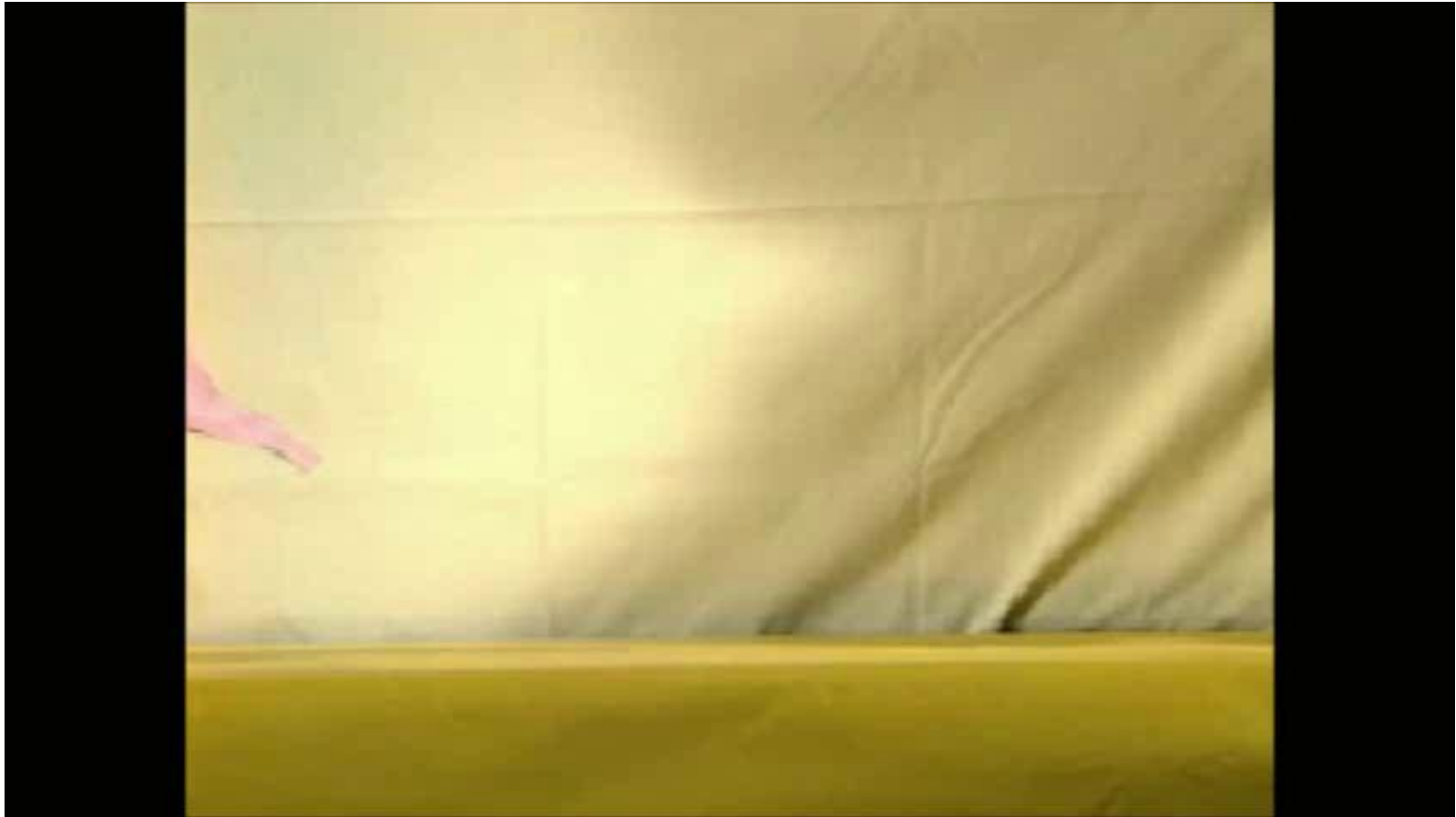


“Its simple to link design technology to English. We did all sorts of writing and reading about the circus.” *Trevor Thompson*

ENTHUSIASM SPREADS



MATHEMATICS

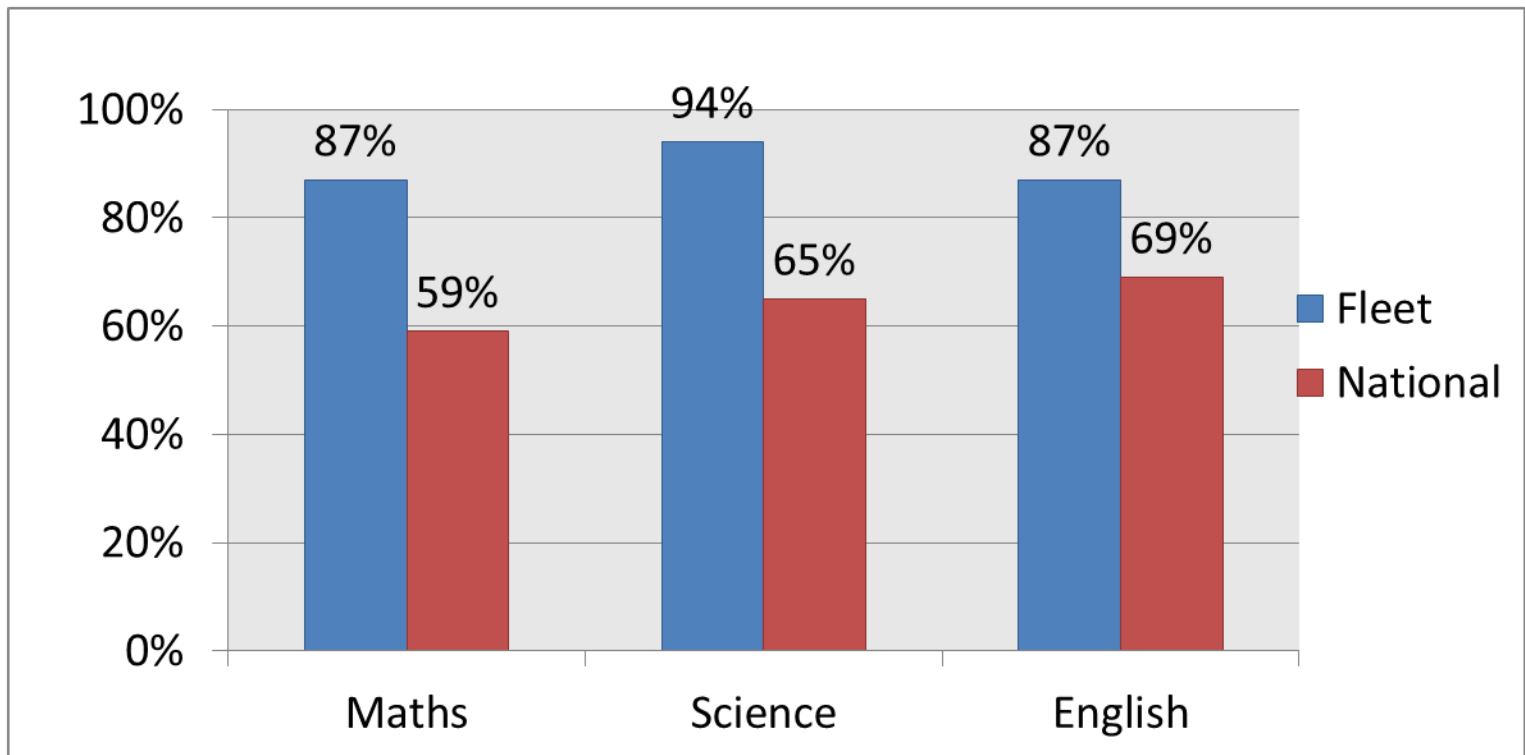


CHRISTMAS CIRCUS



RAISING PERFORMANCE

Test performance compared with national average in England and Wales

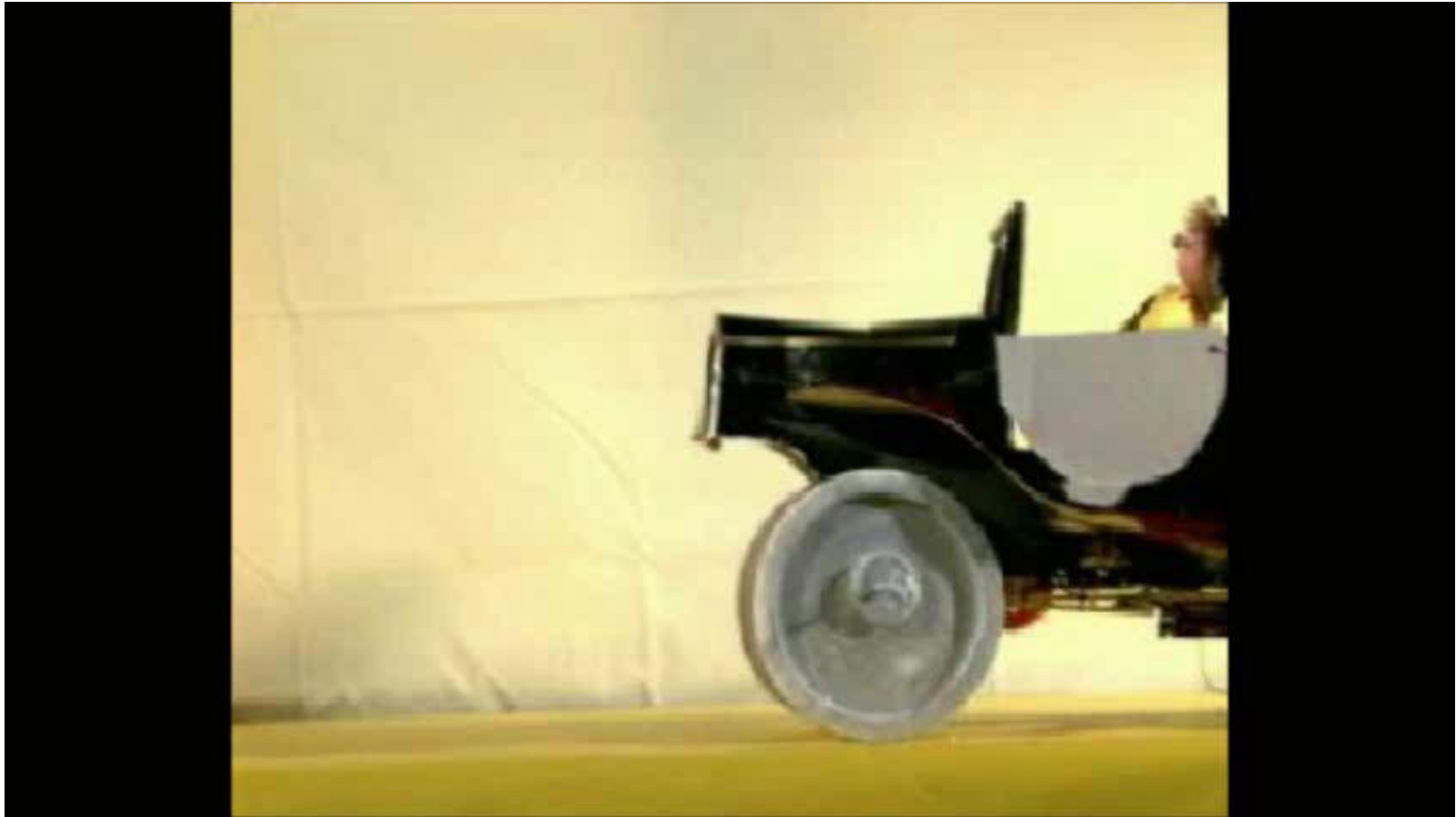




CONCLUSION

Maker space projects can help you create fertile learning environments. They balance constructivism and instruction helping you raise test scores while ensuring the child's imagination, curiosity and thinking skills thrive.

CLOWN CAR



HORSE RIDING ACROBOTS



LION TAMER



DISAPPEARING LENORA



WELL DONE KIDS!

