

# The Role of Computers and the Internet in the Classroom

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# Introduction

- ① Practical Uses
- ② Research
- ③ Interactivity
- ④ Implementation

# Practical Uses

- Blackboard vs Whiteboard vs Smartboard
  - useful, convenient, conducive to learning?
  - clarity of information presented to pupils.
  - PowerPoint, OHP etc.
- Projector
- Computer Suite
- Internet

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Must resist the temptation to use the facilities "because they're there" and instead use them to aid learning for the students and, where applicable, ease the work of the teacher.

# Research

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- individual/group research
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## Must be treated with caution

- supervision
- locating reliable sources
- learn how to search.

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- Need to learn basic search techniques.
  - don’t ask the search engine questions - terms, not why? what? etc.
  - think about the search - could it be misrepresented?
  - specific search syntax “-”, “quoted text”, “site:” etc.

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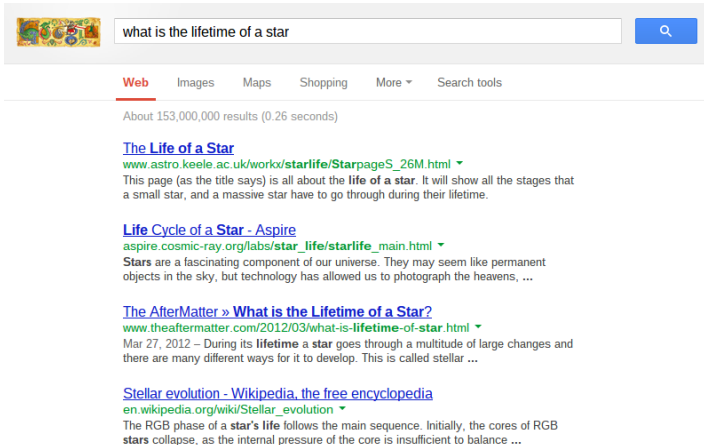
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- Often not taught because the teachers are not taught.

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A screenshot of a Google search results page. At the top, there is a search bar with the text "what is the lifetime of a star" and a magnifying glass icon to its right. Below the search bar, there are tabs for "Web", "Images", "Maps", "Shopping", "More", and "Search tools". The "Web" tab is selected and highlighted with a red underline. Below the tabs, it says "About 153,000,000 results (0.26 seconds)". The first search result is titled "The Life of a Star" in blue, with a URL "www.astro.keele.ac.uk/workx/starlife/StarpageS\_26M.html" and a description: "This page (as the title says) is all about the life of a star. It will show all the stages that a small star, and a massive star have to go through during their lifetime." The second result is titled "Life Cycle of a Star - Aspire" in blue, with a URL "aspire.cosmic-ray.org/labs/star\_life/starlife\_main.html" and a description: "Stars are a fascinating component of our universe. They may seem like permanent objects in the sky, but technology has allowed us to photograph the heavens, ...". The third result is titled "The AfterMatter » What is the Lifetime of a Star?" in blue, with a URL "www.theaftermatter.com/2012/03/what-is-lifetime-of-star.html" and a description: "Mar 27, 2012 – During its lifetime a star goes through a multitude of large changes and there are many different ways for it to develop. This is called stellar ...". The fourth result is titled "Stellar evolution - Wikipedia, the free encyclopedia" in blue, with a URL "en.wikipedia.org/wiki/Stellar\_evolution" and a description: "The RGB phase of a star's life follows the main sequence. Initially, the cores of RGB stars collapse, as the internal pressure of the core is insufficient to balance ...". At the bottom right of the page, there are navigation icons for back, forward, and search.

what is the lifetime of a star

Web Images Maps Shopping More Search tools

About 153,000,000 results (0.26 seconds)

[The Life of a Star](#)  
[www.astro.keele.ac.uk/workx/starlife/StarpageS\\_26M.html](http://www.astro.keele.ac.uk/workx/starlife/StarpageS_26M.html) ▾  
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1. [arXiv:1207.5972](#) [pdf, other]

### Quasi-stars and the Schönberg-Chandrasekhar limit

[Warrick H. Ball](#)

Comments: PhD dissertation, University of Cambridge. 145 pages. Dissertation submitted 19/4, examined 17/5, corrections approved 6/6, degree approved 3/7, awarded 21/7

Subjects: **Solar and Stellar Astrophysics (astro-ph.SR)**; High Energy Astrophysical Phenomena (astro-ph.HE)

2. [arXiv:1201.5560](#) [pdf, ps, other]

### Quasi-stars, giants and the Schönberg-Chandrasekhar limit

[Warrick H. Ball](#), [Christopher A. Tout](#), [Anna N. Zytow](#)

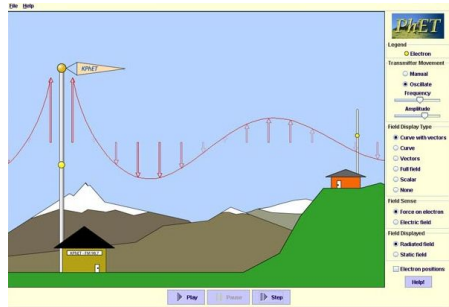
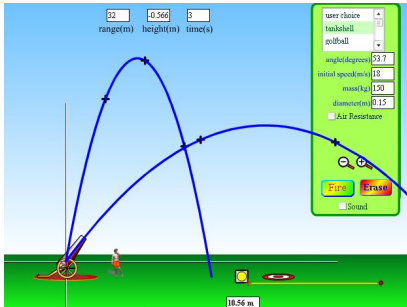
Comments: 9 pages, 7 figures, published in MNRAS. Updated to (more closely) match published version

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[Back to Search form](#)

# Interactivity

- Brilliant tools available for teaching
  - Videos - Youtube, Ted
  - Animations - PhET



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  - is it always necessary and beneficial?
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- Some decisions must be made
  - is it always necessary and beneficial?
  - how to introduce skills to students?
- Why?
  - Essential skills
  - Advance beyond simple maths