

# Brachiosaurus Lesson Plan

## Summary

In this episode of Sketch and Coffee Live at 5:30am Texas time, Blade sketched a tiny green toy Brachiosaurus while exploring the history and science of this towering Jurassic sauropod. The discussion covered its Late Jurassic age, distribution across North America and Africa, distinctive long front legs, and unusual high-nostril skulls. Blade noted the rarity of good specimens, the overblown herd portrayals in media, and compared the dinosaur's size to a blue whale. The stream also traced Brachiosaurus's absence from early films, its rise to pop culture prominence in the 1970s and 1980s through toys and TV, and Michael Crichton's Jurassic Park as a cautionary tale -one still ignored by some modern biotech ventures.

Watch the episode here: <https://www.youtube.com/live/OMCIEz5QnAM?si=YB9yjuOlyVIpkmRY>

## Lesson Plan

### Objective:

Students will learn about Brachiosaurus's paleontological history, physical characteristics, fossil record, and cultural significance while developing skills in critical thinking and fact-checking scientific claims.

### Standards:

- NGSS: MS-LS4-1, MS-LS4-2 (Biological Evolution)
- CCSS.ELA-LITERACY.RI.6.7 (Integrate visual information with other information in print and digital texts)

### Materials:

- Video of Sketch and Coffee Live Brachiosaurus episode
- Printed "9 Fun Facts About Brachiosaurus" handout
- Globe or world map showing Late Jurassic continental positions

**Procedure:**

1. Introduction (5 min): Show students an image of a toy Brachiosaurus and a life restoration. Discuss how toys and media can shape perceptions of real animals.
2. Video Segment (10 min): Play selected clips from the episode focusing on the fossil record, size comparison, and distribution.
3. Guided Discussion (10 min): Review the “9 Fun Facts” and clarify which are backed by evidence and which involve conjecture.
4. Activity (15 min):
  - Have students use the globe/map to locate where Brachiosaurus altithorax and Giraffatitan brancai fossils were found.
  - Compare Brachiosaurus’s length and volume to a blue whale using proportional visuals.
5. Reflection (5 min): Discuss why certain unique body plans, like Brachiosaurus’s long front legs and high nostrils, may not have been repeated in later evolution.

**Assessment:**

- Participation in discussion
- Accuracy in map and size comparison activity
- Written response explaining one Fun Fact and why it’s important

**Extension:**

- Research another dinosaur that rose to fame through film or media and compare its fossil evidence to Brachiosaurus’s.

**Rubric**

Criteria	4 - Excellent	3 - Proficient	2 - Developing	1 - Beginning
Understanding of Facts	Accurately explains all 9 Fun Facts	Explains most facts with minor errors	Explains some facts, several errors	Major misunderstandings of facts
Evidence Use	Consistently distinguishes evidence from conjecture	Usually distinguishes evidence from conjecture	Sometimes distinguishes, often unclear	Rarely distinguishes evidence from conjecture
Engagement	Actively participates, asks questions	Participates, answers when called	Limited participation	No participation
Map/Size Activity	Correct and complete	Mostly correct	Some correct	Incorrect or incomplete

## 9 Fun Facts About Brachiosaurus

**1. A Dinosaur From 150 Million Years Ago** Imagine a world with no people, no grass, and giant trees -that's when Brachiosaurus lived! It roamed the Late Jurassic Period for millions of years. Source: <https://www.nhm.ac.uk/discover/dino-directory/brachiosaurus.html>

**2. Found on Two Different Continents** The North American Brachiosaurus altithorax has a close cousin, Giraffatitan brancai, from Africa. These giants show that their family ruled not just one land, but entire continents separated by oceans today. Source: <https://dinomuseum.ca/2019/05/your-brachiosaurus-is-not-a-brachiosaurus>

**3. As Tall as a Four-Story Building** Brachiosaurus could stretch up to 80 feet long and about 40 feet tall -tall enough to peek into your apartment window on the fourth floor! Source: <https://dinopedia.fandom.com/wiki/Brachiosaurus>

**4. One of the Rarest Dino Discoveries** Scientists have found fewer than a dozen good Brachiosaurus skeletons. That means every new bone could change what we think we know about this dinosaur. Source: <https://dinomuseum.ca/2019/05/your-brachiosaurus-is-not-a-brachiosaurus>

**5. Missed the First Dinosaur Movies** Brachiosaurus wasn't named until 1903, so it missed being in early classics like The Lost World (1925). It finally had its big Hollywood moment in Jurassic Park (1993). Source: <https://paleontology.fandom.com/wiki/Brachiosaurus>

**6. The Dino TV Star That Prepped a Generation** In the 1970s and '80s, shows like Land of the Lost filled TV screens with dinosaurs and adventure. That steady dose of prehistoric fun made Gen-X kids lifelong dinosaur fans. Source: <https://www.stanwinstonschool.com/blog/kids-dinosaurs-tv-movies-favorite>

**7. Toys That Taught Accuracy** In 1984, the British Museum of Natural History's Invicta line made a hard-plastic Brachiosaurus. Four years later, Safari Ltd.'s Carnegie Collection brought even more realistic dino figures to toy shelves. Source: <https://dinotoyblog.com/forum/index.php?topic=379.0>

**8. A Story Sparked by Real Science** When Michael Crichton wrote Jurassic Park in 1990, scientists were already talking about cloning and gene-splicing. His book asked, 'But what if we brought dinosaurs back?' Source: <https://www.mentalfloss.com/michael-crichton-jurassic-park-book-facts>

**9. Science Fiction Is Becoming Science Fact** Today, labs are trying to bring back animals like the woolly mammoth using DNA from frozen remains. But just like in Jurassic Park, scientists are debating if we should -not just if we can. Source: <https://colossal.com/mammoth>

## Worksheet

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

### Review:

1. When did Brachiosaurus live?
  2. Which continents have yielded Brachiosaurus fossils or close relatives?
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### Discussion:

Why might Brachiosaurus' body plan be unique in evolutionary history?

### Data Analysis:

If a Brachiosaurus is about one fifth the bulk of a blue whale, how many Brachiosaurs would equal the whale's volume? Show your math.

### Reflection:

How does pop culture shape what we think we know about dinosaurs?