

SECOND REGULAR SESSION

# HOUSE BILL NO. 1266

## 93RD GENERAL ASSEMBLY

---

INTRODUCED BY REPRESENTATIVE COOPER (155).

Read 1st time January 9, 2006 and copies ordered printed.

STEPHEN S. DAVIS, Chief Clerk

3830L.01I

---

### AN ACT

To amend chapter 170, RSMo, by adding thereto one new section relating to the Missouri science education act.

---

*Be it enacted by the General Assembly of the state of Missouri, as follows:*

Section A. Chapter 170, RSMo, is amended by adding thereto one new section, to be  
2 known as section 170.025, to read as follows:

**170.025. 1. This section shall be known and may be cited as the "Missouri Science  
2 Education Act".**

**3 2. As used in this section, the following terms mean:**

**4 (1) "Substantive", equal to or greater than. Each public school district may modify  
5 or expand this definition as necessary within the meaning of substantive for local use;**

**6 (2) "Verified empirical data", information representing physical reality based upon  
7 repeated independent human observation, measurement, and experimentation with  
8 consistent results. Verified empirical data is without significant inference and is not  
9 theory, hypothesis, conjecture, speculation, estimated data, extrapolated data, or consensus  
10 of scientific opinion.**

**11 3. Public elementary and secondary school science teacher instruction for sixth  
12 grade through twelfth grade courses in physics, chemistry, biology, physical science, earth  
13 science, and other natural science courses shall comply with the following best practices,  
14 subject to the availability of teaching material but no later than five years after the  
15 effective date of this section:**

EXPLANATION — Matter enclosed in bold-faced brackets [thus] in the above bill is not enacted and is intended to be omitted from the law. Matter in **bold-face** type in the above bill is proposed language.

16           **(1) Teacher classroom instruction shall use the following best practices to support**  
17 **the truthful identity of scientific information and minimize misrepresentation while**  
18 **promoting clarity, accuracy, and student understanding:**

19           **(a) Information that appears to be verified empirical data, but is not, shall be**  
20 **identified to distinguish it as separate from verified empirical data. Verified empirical data**  
21 **needs no specific identification. Inability to determine if specific information is verified**  
22 **empirical data shall not invalidate such best practice;**

23           **(b) Information representing scientific thought such as theory, hypothesis,**  
24 **conjecture, speculation, extrapolation, estimation, unverified data, consensus of scientific**  
25 **opinion, and philosophical belief shall be identified to distinguish it as separate from**  
26 **verified empirical data;**

27           **(2) Teacher classroom instruction shall use the following best practices to support**  
28 **the objective teaching of scientific information and minimize dogmatism while promoting**  
29 **student inquiry, healthy skepticism, and understanding:**

30           **(a) When information other than verified empirical data is taught representing**  
31 **current scientific thought such as theory, hypothesis, conjecture, speculation,**  
32 **extrapolation, estimation, unverified data, consensus of scientific opinion, and**  
33 **philosophical belief, such information shall be within the purview of critical analysis and**  
34 **may be critically analyzed. Critical analysis includes the teaching of anomalous verified**  
35 **empirical data, contrary verified empirical data, missing supporting data, inadequate**  
36 **mechanisms, insufficient resources, faulty logic, crucial assumptions, alternate logical**  
37 **explanations, lack of experimental results, conflicting experiments, or predictive failures**  
38 **where applicable;**

39           **(b) When information other than verified empirical data is taught representing**  
40 **current scientific thought such as theory or hypothesis regarding phenomena that occur**  
41 **in the future or that occurred previous to written history, a critical analysis of such**  
42 **information shall be taught in a substantive amount. If a theory or hypothesis of biological**  
43 **origins is taught, a critical analysis of such theory or hypothesis shall be taught in a**  
44 **substantive amount.**

45           **4. No public elementary or secondary school science teacher shall be refused**  
46 **employment, disciplined, denied advancement, transferred, or otherwise discriminated**  
47 **against for teaching in accordance with the best practices in subsection 3 of this section**  
48 **within the time allotted the affected subject matter by the course curriculum.**

49           **5. The state commissioner of education shall ensure that any assessment or**  
50 **competency testing of public elementary and secondary school pupils for academic**  
51 **performance used by the state and whose content may be modified by the state complies**

52 with the best practices in subsection 3 of this section by the proper identification of  
53 scientific information and critical analysis. If questions regarding information within the  
54 purview of paragraph (b) of subdivision (2) of subsection 3 of this section are included in  
55 a test, questions regarding critical analysis of such information shall be included in a  
56 substantive amount.

✓