

NINETEENTH CONGRESS OF THE)
REPUBLIC OF THE PHILIPPINES)
Third Regular Session)



HOUSE OF REPRESENTATIVES

House Bill No. 10611

**Introduced by REPRESENTATIVES LANI MERCADO-REVILLA,
BRYAN B. REVILLA AND RAMON JOLO REVILLA III**

**AN ACT
SEEKING TO INSTITUTIONALIZE “UNANG AGHAM”, PROMOTING SCIENCE
EDUCATION IN EARLY CHILDHOOD**

EXPLANATORY NOTE

The Philippines’ recent performance in the 2022 Program for International Student Assessment (PISA) placed the country third to the last among 81 countries in science.¹ Despite efforts, educational outcomes have shown little improvement since 2018.

In response, President Ferdinand Marcos Jr. has directed the Department of Education (DepEd) to redouble its efforts not only to enhance PISA scores but also to elevate overall student achievement nationwide.²

This proposed “Unang Agham Act” represents a concerted effort, led by the DepEd, to establish a strong foundation for future generations, by enhancing early science education.³ This measure aims to equip Filipino children with essential skills and knowledge vital for their holistic development and future success.

¹ Bautista, J. (2023, December 6). PH students still among lowest scorers in reading, math, science – pisa . *Inquirer.Net*. Retrieved 2024, from <https://newsinfo.inquirer.net/1871182/ph-students-still-among-lowest-scorers-in-reading-math-science-pisa#:~:text=In%20the%202018%20Pisa%2C%20the%20country%20scored%20the,ranked%20third%20to%20the%20last%20among%2081%20countries.>

² Servillos, N. J. (2024, January 12). Marcos wants deped to raise philippine students’ pisa ranking. *Philstar Global*. Retrieved 2024, from <https://www.philstar.com/headlines/2024/01/12/2325183/marcos-wants-deped-raise-philippine-students-pisa-ranking>.

³ HB 3688, introduced by Reps. Villafuerte, et al. during the First Regular Session of the 19th Congress has laid a valuable framework for the current proposed bill.

Research in child development underscores the significance of early learning, revealing that children possess greater learning capacity than previously understood.⁴ Science, especially during childhood, not only establishes the foundation for future scientific knowledge but also nurtures essential skills and attitudes towards learning.⁵ Early science education fosters hands-on exploration, encourages inquiry, promotes keen observation, and nurtures curiosity about the natural world.⁶

Currently, societal changes have reduced opportunities for children to directly engage with objects, materials, and natural phenomena in their homes.⁷ Factors such as rising child poverty rates, dual-working households, and increased media consumption and screen time among children have contributed to this trend. As a result, early childhood classrooms have become crucial settings for fostering experiential learning opportunities.

Early childhood education, spanning from birth to kindergarten years, has evolved to encompass the critical period until the third grade, reflecting a deeper understanding of developmentally appropriate practices advocated by leading educational bodies.⁸

Advancing early science education does not aim solely to produce future scientists but seeks to nurture all children into individuals poised to contribute meaningfully to society. By investing in our children's futures, we affirm our commitment to national progress.

Given these considerations, we urge the swift passage of this bill.

⁴ Kuhl, P. K. (2012). *Early Language Learning and Literacy: Neuroscience Implications for Education*. National Library of Medicine - National Center for Biotechnology Information. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164118/>

⁵ Prachagool, V. (2021). Scientific Attitude of Young Children through Literature and Project-Based Learning Organization. *Journal of Educational Issues*, 7(2). <https://files.eric.ed.gov/fulltext/EJ1324765.pdf>

⁶ Campbell, C., Jobling, W. M., & Howitt, C. (2015). *Science in Early Childhood* (Second). Cambridge University Press. 2024, https://www.researchgate.net/publication/278412724_Science_in_early_childhood

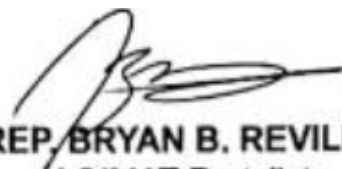
⁷ Worth, K. (2010). *SEED Paper: Science in Early Childhood Classrooms: Content and Process*. Early Childhood Research and Practice. <https://ecrp.illinois.edu/beyond/seed/worth.html>

⁸ Keily, T., Evans, A., & Atchison, B. (2019, April). *Policy Guide: Strengthening the Early Childhood Education Continuum*. Education Commission of the United States. <https://files.eric.ed.gov/fulltext/ED594403.pdf>



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AN ACT
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Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

SECTION 1. *Short Title.* – This Act shall be known as the “Unang Agham Act”.

SEC 2. *Declaration of Policy.* – It is the declared policy of the State to recognize the importance of early literacy and science education in protecting and promoting the right of all citizens to quality education. Towards this end, the State shall develop programs that aim to support children, especially from economically disadvantaged backgrounds and public schools, to develop early science literacy. These programs shall motivate a child’s interest in learning science, fostering a deeper understanding of the world around them through hands-on activities, play- based learning, and early childhood experiments.

SEC 3. *Promotion of Science in Early Childhood Education.* –

- (A) **Grants Authorized.** – The Secretary of the Department of Education (DepEd) may award grants, to be known as “Unang Agham” Grants, to organizations to support model programs that provide instruction in science activities for children enrolled in pre-school and Grades 1 to 3.
- (B) **Priority.** – In awarding grants under this Section, the Secretary shall give priority to applicants that demonstrate the ability to:
- (1) Provide teacher training programs that involve participants in hands-on and play-based learning activities that incorporate scientific concepts, fostering a child’s natural curiosity;
 - (2) Attract broad teacher participation;
 - (3) Use experienced teachers as instructors; and

- (4) Provide for periodic follow-up activities conducted, at minimum, during a 6-month period.
- (C) Incentives for Schools. – In addition to grants, other DepEd incentives may include:
- (1) Teacher Training Programs: Schools that implement science training programs for pre-school and Grade 1 teachers shall be eligible for additional support or recognition.
 - (2) Science Resource Centers: Additional science materials and resources not commonly found in classrooms shall be provided to schools to enhance the learning experience and support science education.
 - (3) Recognition and Awards: Schools, teachers, and administrators that demonstrate excellence in early science education shall be recognized annually to motivate outstanding efforts in promoting science education and encourage others to strive for similar excellence.
 - (4) Community Partnerships: Partnership between schools and local communities or organizations shall be encouraged to enhance science education through additional resources, mentorship and support, thereby providing students with more opportunities to engage with science.

SEC 4. Government Support and Collaboration. – In addition to the DepEd's responsibility for the overall implementation and administration of the program, the following government agencies shall collaborate to achieve the goals of this Act:

- (A) Department of Science and Technology (DOST): Provide expertise and resources for the development of science materials for learning, and facilitate opportunities for students to interact with Filipino scientists aimed at inspiring children in early science education.
- (B) Department of Health (DOH): Promote the health benefits of early science education, ensure that programs incorporate aspects of children's physical and mental well-being, and provide guidance on creating a healthy learning environment.
- (C) Philippine Science High School (PSHS): Facilitate partnerships and provide mentorship to schools, particularly in developing specialized science education programs for early childhood.
- (D) Local Government Units (LGUs): Support local implementation and community partnerships.
- (E) National Museum (NM): Collaborate with educational institutions to develop interdisciplinary learning opportunities that incorporate science with Philippine cultural heritage, artifacts, and natural history.
- (F) Philippine Information Agency (PIA): Disseminate information about the program, its benefits, and success stories to encourage wider participation and support.

Other necessary agencies and non-government organizations as deemed by the DepEd for support and coordination in achieving the objectives of this Act shall also be included.

SEC 5. Evaluation and Report. – The DepEd Secretary shall report to the Congress every two (2) years, beginning two (2) years after the date of enactment of

this Act, regarding the activities assisted under this program.

SEC 6. *Implementing Rules and Regulations.* – Within sixty (60) days from the effectivity of this Act, the DepEd, in coordination with the DOST, DOH, PSHS, LGUs, NM, and PIA, and other relevant stakeholders, shall formulate and issue the necessary rules and regulations for the effective implementation of this Act.

SEC 7. *Appropriations.* – To carry out the provision of this act, such sum as may be necessary is hereby authorized to be appropriated from the National Treasury. Thereafter, the sum necessary for the continuous operation of the program shall be included in the General Appropriations Act.

SEC 8. *Separability Clause.* – If for any reason, any provision is declared unconstitutional, the other sections or provisions hereof which are not hereby affected shall continue to be in full force and effect.

SEC 9. *Repealing Clause.* – All law, decrees, orders, rules and regulations or portions thereof inconsistent with this Act are hereby repealed or modified accordingly.

SEC 10. *Effectivity Clause.* – This Act shall take effect fifteen (15) days after its complete publication in the Official Gazette or in two (2) newspapers of general circulation, whichever comes earlier.

Approved,