



## Kurslitteratur

### **UM001FN, Översiktskurs i naturvetenskapsämnenas didaktik**

#### **UM001FN, FN, 7,5 hp**

Abd-El-Khalick, F. (2012). Examining the sources for our understandings about science: Enduring conflations and critical issues in research on nature of science in science education. *International Journal of Science Education*, 34(3), s. 353–374.  
<https://doi.org/10.1080/09500693.2011.629013> (22 s.)

Allchin, D. (2011). Evaluating knowledge of the nature of (whole) science. *Science Education*, 95(3), s. 518-542. <https://doi.org/10.1002/sce.20432> (25 s.)

Anderhag, P., Wickman, P. O., Bergqvist, K., Jakobson, B., Hamza, K. M., & Säljö, R. (2016). Why do secondary school students lose their interest in science? Or does it never emerge? A possible and overlooked explanation. *Science Education*, 100(5), 791-813. <https://doi.org/10.1002/sce.21231> (23 s.)

Caralone, H. B., Webb, A. W., Archer, L., & Taylor, M. (2015). What kind of boy does science? A critical perspective on the science trajectories of four scientifically talented boys. *Science Education*, 99(3), 438-464.  
<https://doi.org/10.1002/sce.21155> (27 s.)

Danielsson, A., Avraamidou, L., & Gonsalves, A. (2023). Gender Matters: Building on the Past, Recognizing the Present, and Looking Toward the Future. I N. G. Lederman, D. L. Zeidler, & J. S. Lederman (Red.), *Handbook of Research on Science Education* (s. 263–290). Routledge. (28s.)

DeBoer G. E. (2000) Scientific literacy: Another look at its historical and contemporary meanings and its relationship to science education reform. *Journal of Research in Science Teaching* 37(6), s. 582–601. [https://doi.org/10.1002/1098-2736\(200008\)37:6%3C582::AID-TEA5%3E3.0.CO;2-L](https://doi.org/10.1002/1098-2736(200008)37:6%3C582::AID-TEA5%3E3.0.CO;2-L) (20 s.)

Caiman, C., & and Jakobson, B. (2022). Aesthetic experience and imagination in early elementary school science – a growth of ‘Science–Art–Language–Game’.



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*International Journal of Science Education*, 44(5), 833–853.  
<https://doi.org/10.1080/09500693.2021.1976435> (21s.)

de Freitas, E. & Palmer, A. (2016). How scientific concepts come to matter in early childhood curriculum: rethinking the concept of force. *Cultural Studies of Science Education*, 11, 1201-1222. <https://doi.org/10.1007/s11422-014-9652-6> (22 s.)

Erduran, S., Dagher, Z. R. (2014). Family resemblance approach to characterizing science. In S. Erduran & Z. R. Dagher (Eds.). Reconceptualizing the Nature of Science for Science Education. Knowledge, Practices and Other Family Categories, (s 19-40). *Contemporary Trends and Issues in Science Education*, Vol 43 Springer, Dordrecht. [https://doi.org/10.1007/978-94-017-9057-4\\_2](https://doi.org/10.1007/978-94-017-9057-4_2) (22 s.)

Günther-Hanssen, A. (2020). A swing and a child: how scientific phenomena can come to matter for preschool children's emergent science identities. *Cultural Studies of Science Education*, 15(4), 885-910. <https://doi.org/10.1007/s11422-020-09980-w> (26s.)

Hannigan, S., Wickman ,Per-Olof, Ferguson ,Joseph Paul, Prain ,Vaughan, & and Tytler, R. (2022). The role of aesthetics in learning science in an art-science lesson. *International Journal of Science Education*, 44(5), 797–814.  
<https://doi.org/10.1080/09500693.2021.1909773> (18 s.)

Hofstein, A., & Lunetta, V. N. (2004). The laboratory in science education: Foundations for the twenty-first century. *Science education*, 88(1), 28-54.  
<https://doi.org/10.1002/sce.10106> (27 s.)

Jakobson, B., & Wickman, P.-O. (2015). What difference does art make in science? A comparative study of meaning-making at elementary school. *Interchange*, 46(4), 323–343. <https://doi.org/10.1007/s10780-015-9262-6> (22 s.)

Laugksch R. C. (2000) Scientific literacy: A conceptual overview. *Science Education* 84(1), s. 71–94. [https://doi.org/10.1002/\(SICI\)1098-237X\(200001\)84:1%3C71::AID-SCE6%3E3.0.CO;2-C](https://doi.org/10.1002/(SICI)1098-237X(200001)84:1%3C71::AID-SCE6%3E3.0.CO;2-C) (24 s.)

Lederman, J., Lederman, N., Bartels, S., Jimenez, J., Akubo, M., Aly, S., ... & Zhou, Q. (2019). An international collaborative investigation of beginning seventh grade students' understandings of scientific inquiry: Establishing a baseline.



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*Journal of Research in Science Teaching*, 56(4), 486-515  
<https://doi.org/10.1002/tea.21512> (30 s.)

Lemke, J. L. (1990). *Talking science: Language, learning, and values*. Ablex Publishing Corporation, Norwood, NJ. Chapter 5. (24 s.)

Lundegård, I., & Caiman, C. (2019). Didaktik för naturvetenskap och hållbar utveckling – Fem former av demokratiskt deltagande. *NorDiNa*, 15(1), 38–53. <https://doi.org/10.5617/nordina.4822> (15 s.)

Lyon, H. (1918). Student interest in subject matter. *Science Education*, 2(3), 387-389. (3 s.)

Mogensen, F., & Schnack, K. (2010). The action competence approach and the ‘new’ discourses of education for sustainable development, competence, and quality criteria. *Environmental Education Research*, 16(1), 59–74. <https://doi.org/10.1080/13504620903504032> (15 s.)

Nielsen, K. B., & Holmegaard, H. T. (2025). The fox, the flowers, and the poking stick: the worlds of young children and their encounters with school science. *Cultural Studies of Science Education*, 1-27. <https://doi.org/10.1007/s11422-024-10244-0> (27 s.)

Osborne, J., Erduran, S., & Simon, S. (2004). Enhancing the quality of argumentation in school science. *Journal of research in science teaching*, 41(10), 994-1020. <https://doi.org/10.1002/tea.20035> (27 s.)

Potvin, P., & Hasni, A. (2014). Interest, motivation and attitude towards science and technology at K-12 levels: a systematic review of 12 years of educational research. *Studies in Science Education*, 50(1), 85-129. <https://doi.org/10.1080/03057267.2014.881626> (45 s.)

Rundgren, C.- J., Eriksson, M., & Chang Rundgren, S.-N. (2016). Investigating the intertwinement of knowledge, value, and experience of upper secondary students’ argumentation concerning socioscientific issues. *Science & Education*, 25(9), 1049-1071. <https://doi.org/10.1007/s11191-016-9859-x> (23 s.)

Sheldrake, R., Mujtaba, T., & Reiss, M. J. (2017). Science teaching and students’ attitudes and aspirations: The importance of conveying the applications and



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relevance of science. *International Journal of Educational Research*, 85, 167-183.  
<https://doi.org/10.1007/s11191-016-9859-x> (17 s.)

Siry, C., & Max, C. (2013). The collective construction of a science unit: Framing curricula as emergent from kindergarteners' wonderings. *Science Education*, 97(6), 878-902. <https://doi.org/10.1002/sce.21076> (25 s.)

Siry, C., Wilmes, S. E., & Sportelli, D. (2025). Young children's translanguaging as emergent in and through open-ended science pedagogies. *Journal of Research in Science Teaching*, 62(1), 347-378. <https://doi.org/10.1002/tea.21995> (32 s.)

Sjöström, J. (2024). Vision III of scientific literacy and science education: an alternative vision for science education emphasising the ethico-socio-political and relational-existential. *Studies in Science Education*, 1–36.  
<https://doi.org/10.1080/03057267.2024.2405229> (37 s.)

Ünsal, Z., Jakobson, B., Molander, B. O., & Wickman, P. O. (2018). Language use in a multilingual class: A study of the relation between bilingual students' languages and their meaning-making in science. *Research in Science Education*, 48(5), 1027-1048. <https://doi.org/10.1007/s11165-016-9597-8> (21 s.)

Van Poeck, K., Östman, L. & Öhman, J. (Ed.) (2019). *Sustainable Development Teaching: Ethical and Political Challenges*. London: Routledge. Chapter 1+3 (29 s.)

Zeidler, D. L., Sadler, T. D., Simmons, M. L., & Howes, E. V. (2005). Beyond STS: A Research-Based Framework for Socioscientific Issues Education. *Science Education*, 89(3), 357-377. <https://doi.org/10.1002/sce.20048> (21 s.)

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## Valbar litteratur

Valbar litteratur i form av forskningsartiklar väljs i samråd med kurslärare