

1. Record Nr.	UNINA9910578691803321
Titolo	Play and STEM Education in the Early Years : International Policies and Practices // edited by Sue Dale Tunnicliffe, Teresa J. Kennedy
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	9783030998301 3030998304
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (485 pages)
Disciplina	507.1 372.35044
Soggetti	Science - Study and teaching Early childhood education International education Comparative education Mathematics - Study and teaching Education and state Science Education Early Childhood Education International and Comparative Education Mathematics Education Educational Policy and Politics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter 1: Introduction -- Chapter 2: Exploring the possibilities of STEM and Play in preschool years in England -- Chapter 3: Psychology of children's play, imagination, creativity and playful pedagogies in early childhood education in Russia -- Chapter 4: Play-based Learning as a Natural Teaching Strategy in the Jamaican Preschool Environment -- Chapter 5: Preparing Early Years Practitioners in Mauritius -- Chapter 6: The Finnish Approach to Early Years STEM Education -- Chapter 7: Early STEM Implementation in PreK and Kindergarten in Mexico -- Chapter 8: Bee-Bot Robots and Learning in the Play-based

Behaviour of Preschool Children in Canada -- Chapter 9: Changes in Young Children's Lives and Society through STEM Play in Japan -- Chapter 10: Diverse STEM Interest Development Pathways in Early Childhood -- Chapter 11: Play in Early Learning in Dioramas -- Chapter 12: Engaging Children in Science Learning Through Outdoor Play -- Chapter 13: GLOBE, STEM and Argentine Citizen Science: Collaborations in the Early Years through Outdoor Play in Nature -- Chapter 14: Research in Israel: Does Constructional Play Improve Preschoolers' Engineering Habits of Mind? -- Chapter 15: Fostering 6-year-olds Conceptual Knowledge of Gears with Guided Play in Germany -- Chapter 16: Moving from Direct Teaching to Project-Based Learning in Pre-school Environments in Spain -- Chapter 17: Play and Mathematics in an English Early Years Classrooms in England -- Chapter 18: STEM in the Early Years in China -- Chapter 19: STEM Integrated Play in Early Years: Policies and Practices in Pakistan -- Chapter 20: Addressing Learner Variability Through Executive Function as a Preventive Measure for Early School Leaving in Malta -- Chapter 21: Early Childhood Programming in Sub-Saharan Africa -- Chapter 22: Play, Science and Engineering in the Early Years in Australia -- Chapter 23: Final Chapter: An overview what the contributions tell us.

Sommario/riassunto

This edited book provides an overview of unstructured and structured play scenarios crucial to developing young children's awareness, interest, and ability to learn Science, Technology, Engineering and Mathematics (STEM) in informal and formal education environments. The key elements for developing future STEM capital, enabling children to use their intuitive critical thinking and problem-solving abilities, and promoting active citizenship and a scientifically literate workforce, begins in the early years as children learn through play, employing trial and error, and often investigating on their own. Forty-seven STEM experts come together from 16 countries (Argentina, Australia, Belgium, Canada, England, Finland, Germany, Israel, Jamaica, Japan, Malta, Mauritius, Mexico, Russia, Sweden, and the USA) and describe educational policies and experiences related to young learners 3–4 years of age, as well as students attending formal-nursery school, early primary school, and the early years classes post 5 years of age. The book is intended for parents seeking to provide STEM activities for their children at home and in playgroups, citizen scientists seeking guidance to provide children with quality educational activities, daycare practitioners providing educational structures for young children from birth to formal education, primary school teachers and preservice teachers seeking to teach preschool, kindergarten or children typically aged 5–8 years old in grades 1–3, as well as researchers and policy makers working in science didactics with small children.
