

## SCIENCE

is a way of observing and experimenting in play



You make a difference to your child's STEM learning when you invite them to use their senses to notice, describe, wonder, compare, question, sort, predict, plan and construct.

Explore:

- » your own home and community
- » local parks and playgrounds
- » beaches and creeks
- » walking trails
- » botanic gardens
- » museums/galleries.

## TECHNOLOGY

is a way of choosing and using tools in play



## ENGINEERING

is a way of problem solving and designing for solutions in play



## MATHEMATICS

is a way of finding solutions through observation and noticing patterns in play



*'Look! Snails come out at night.'*

# GreatStart

Everyday learning for STEM

## STEM



[www.education.sa.gov.au/parenting/greatstart](http://www.education.sa.gov.au/parenting/greatstart)



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STEM  
EARLY YEARS

## Babies to 2 years

From the time your baby is born they are curious and making sense of their world. Younger babies are using all their senses to explore and discover. As they grow they learn while they listen to sounds and watch, touch, push, drop or mouth objects.

### There are many things you can do to encourage STEM thinking and learning, such as:

- » talking about what your baby is seeing, hearing, smelling, tasting and touching.
  - » 'This ball is bumpy,
  - » 'What can we hear?'
- » reading all kinds of books with your baby. (As well as picture books read about trucks, insects, animals, recipes...) When you show curiosity your baby learns to be curious too.
- » giving your baby play things that encourage 'cause and effect' and problem solving like blocks for building, items to push and pull, hammering toys, music making objects and things that float and sink in the bath.
- » giving your baby objects to try out possibilities. i.e different containers, spoons and scoops. Talk about what they are doing and show your curiosity and wonder too.

**Your expression of wonder and delight will attract your baby to explore and understand their environment.**



*Encourage curiosity by wondering together*

## Toddlers (2 to 3 years)

Your toddler's brain continues to grow rapidly as they explore their world. Their language is expanding every day. Opportunities to talk about experiences and make discoveries through play, develops STEM thinking and learning.

### There are many things you can do to encourage STEM thinking and learning, such as:

- » pointing out interesting things when you are out and about, wondering about rainbows, shadows, reflections in windows, house numbers, and patterns in paving
- » making groups of objects such as leaves, pebbles, feathers, shells, toy cars/ or trains. Encouraging your child to talk about what is similar/ different will develop their noticing and thinking skills.
  - » 'These shells are flat and these are curved.'
- » giving your toddler tools to discover their world like binoculars, bug catchers, torches and magnifying glasses. Encourage them to explain their ideas about what they are seeing.
- » inviting your toddler to join you in everyday jobs like cooking, gardening and shopping. When they are doing real work with real tools they will be problem solving using STEM thinking

**Prompting questions from your child and encouraging them to find the answers to their questions promotes STEM thinking.**



*Encourage your child to learn new words as you describe what you notice together*

## Preschoolers (3 to 5 years)

Preschoolers are becoming more social learners. Encourage your child to design, create, build, tell, ask and play. This supports STEM thinking for lifelong learning.

### There are many things you can do to encourage STEM thinking and learning, such as:

- » encouraging your child to tell you their ideas about why and how they think things work. Your child's ideas don't have to be right. Help them work out the answer themselves.
- » asking questions that start their thinking like 'What if...?' or 'I wonder if we can find out how...?'
- » giving your child materials that can be used in many ways to inspire their imagination and creativity, like sand, water, natural objects, pots and pans, blocks, construction equipment and recycled materials
- » providing opportunities for your child to work with others, like building a cubby with sheets, making a map to find treasure or planting seeds. Working together is an important STEM skill.

**Sharing your curiosity, problem-solving and enthusiasm for learning with your child, will encourage their interest in STEM.**



*Encourage children to find their own solutions*