# Genetics Introduction 11SCI - Genetics

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## Learning Outcomes

<ul> <li>Define species</li> <li>Compare and contrast sexual and asexual reproduction</li> </ul>
Starter
Think, pair and share:
<ul> <li>recall MRS C GREN,</li> <li>define "species",</li> <li>discuss the importance of reproduction &amp; the two ways to do it,</li> <li>and think of any advantages/disadvantages</li> </ul>
MRS C GREN: Movement, Respiration, Sensitivity, Circulation, Growth Reproduction, Excretion, Nutrition
Species: A group of organisms that can produce viable offspring
Reproduction
There are two ways to reproduce: <b>sexual</b> reproduction and <b>asexual</b> reproduction.

### **Sexual Reproduction**

- Takes a lot of energy (effort)
- Involves sex cells (gametes)
- Greater genetic variation

What does sexual reproduction? Any animal that you can think of that has different sexes and some flowers and plants.

### **Asexual Reproduction**

- Involves a single organism
- Produces clones (very little variation)
- Requires less energy

What does as exual reproduction? Some plants, bacteria, some insects

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**Does anything do both?** Yes, aphids, slime moulds, sea anemones and some starfish are examples of organisms that can do both sexual and asexual reproduction.

#### Exercise

Compare and contrast sexual and asexual reproduction. Watch this video to get some ideas and use page 30 in your sciPAD to get some more help.