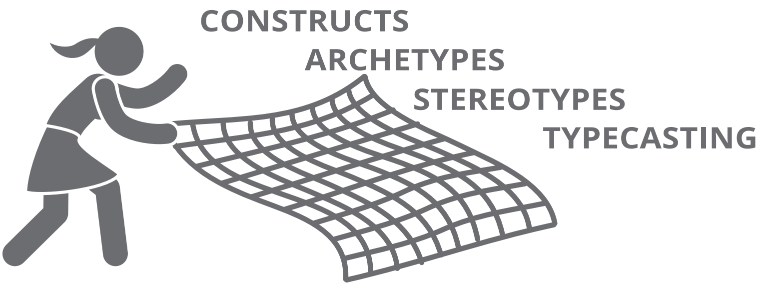
CHAPTER 15 DRAFT BLUEPRINT: CAST OFF

Think about your own experiences with CAST. Consider how each aspect may deter or negatively impact participation and advancement in STEM.



CONSTRUCTS, of the social kind, are beliefs, behaviors, practices, and norms that are created and enforced by society. These are not inherent, but shaped by culture, history, and social relationships. Some examples include the roles of gender, race, class, nationality, sexual orientation, religion, ability, and age.

- List some social constructs that you have observed that may strongly impact STEM fields.
- Reflect on your own awareness of these social constructs and how they may influence your own biases and beliefs.

ARCHETYPES are prevalent portrayals such as mad scientist, lone genius, lab rat, geeky nerd, antisocial, awkward misfit, maverick hero, or dispassionate villain.

STEREOTYPES of women abound – whether perceived as only capable of being nurturers and caregivers, considered emotional and irrational, either inherently people-pleasing or else bossy and controlling, designated supermom and superwoman, perfect and poised, and many more.

Stereotypes and archetypes can oversimplify the diverse and complex roles that scientists play in society.

- Reflect on the experiences of women you know in STEM or stories you have heard where social constructs have had an impact. Analyze the emotional and psychological impact of these experiences on women in STEM and how it may affect their confidence, motivation, or choices.
- Think about tangible barriers or inequalities that may result from these experiences, such as pay gap, underrepresentation, or hiring practices.

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TYPECASTING AND TOKENISM can involve pigeonholing women in specific roles such as lab assistant, technical support, research related to women's issues, or DE&I roles. Tokenism gives the impression that their participation is only symbolic, and that they are not genuinely valued for their contributions. Women may be the 'only' in a group, project, department, or leadership role, or in an event, panel, or conference. They may be assigned to roles with only portrayal in mind, whether in diversity committees with no real power, photo ops for PR purposes without meaningful support, or symbolic titles and superficial recognition.

- Imagine yourself in the place of an intersectional candidate given the above elements and the challenges and bias they may face.

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It's important to recognize that women have made significant contributions to STEM fields throughout history, and that many successful scientists defy stereotypes and do not conform to archetypes. To encourage more women and girls to pursue STEM without feeling limited by these harmful perceptions, it's essential to challenge and debunk stereotypes, encourage girls to explore their interests in science, provide access to female mentors, highlight diverse role models, and create inclusive representations of scientists in media and educational materials.

We need to create inclusive environments in which women and girls in science are genuinely valued, supported, and empowered to contribute meaningfully to their fields and move beyond tokenism. This includes addressing systemic biases, providing equal opportunities, and actively promoting diversity and inclusion.

Above all, we need to let girls know that you can bring in your interests, shape your roles, and pursue your passions in STEM.

You can blaze trails with potential that is exponential.