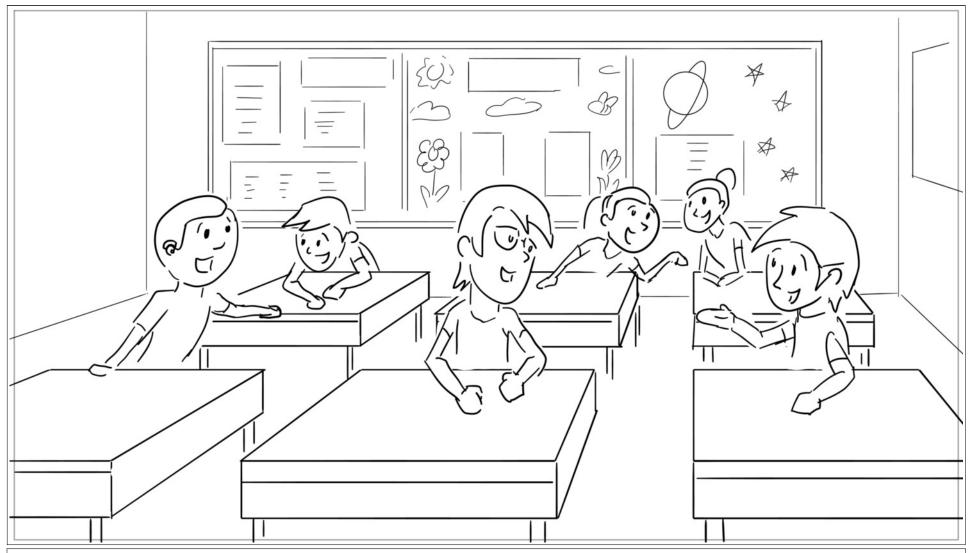
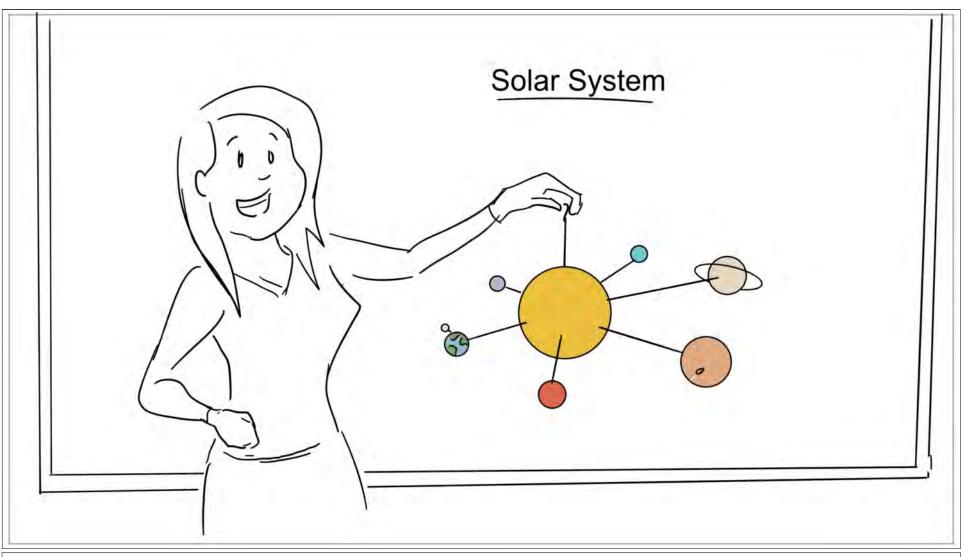
# Learning Science: Motivation



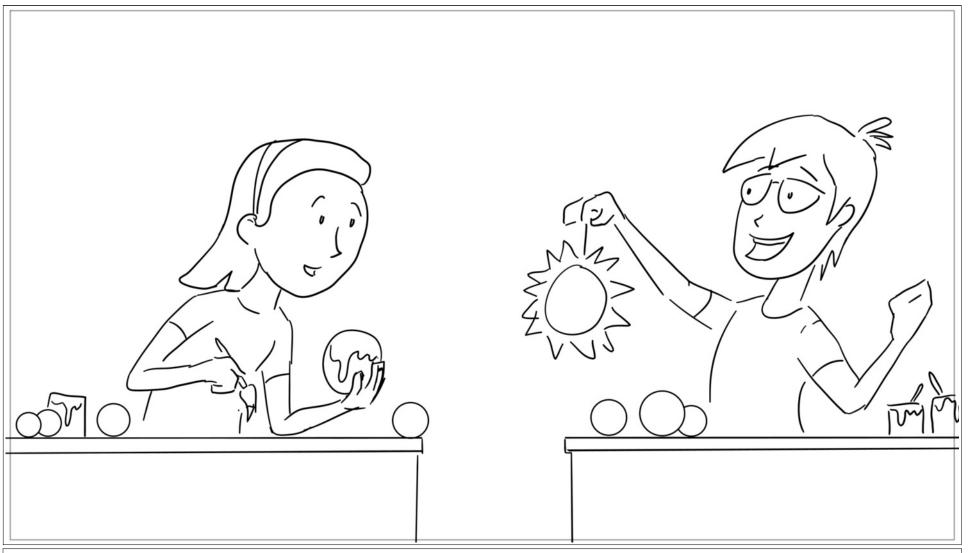


Hey teacher! Imagine that this is your classroom.





You're confident that your famous solar system model project is an exciting activity.



Who doesn't love mathematical models and outer space? But some students just aren't motivated this year -

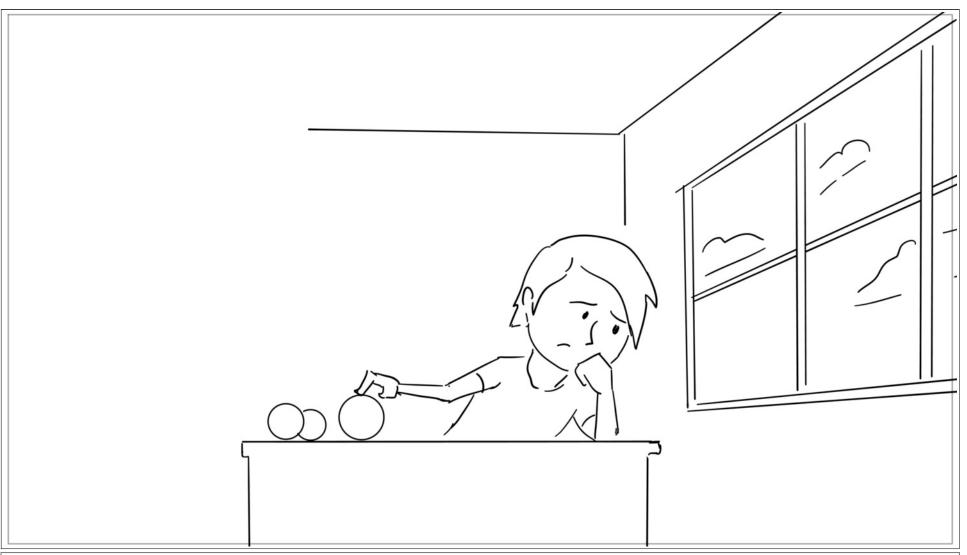
Action Notes

Pan right, showing students excited about the project





Who doesn't love mathematical models and outer space? But some students just aren't motivated this year -



for example, Parker doesn't seem motivated to complete her model at all.

Action Notes

End pan on Parker, who's isolated and has no interest in the project

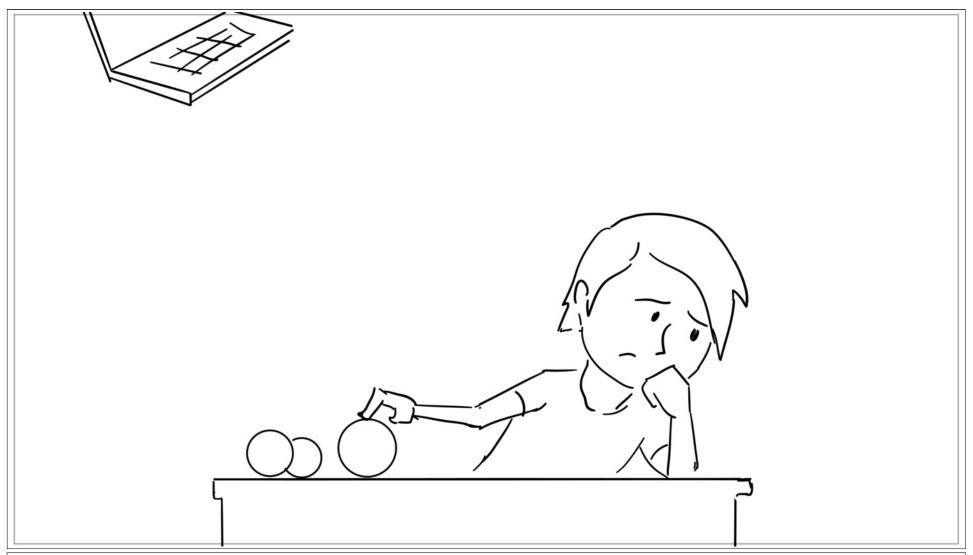


for example, Parker doesn't seem motivated to complete her model at all.

Action Notes

Slow pan in on Parker





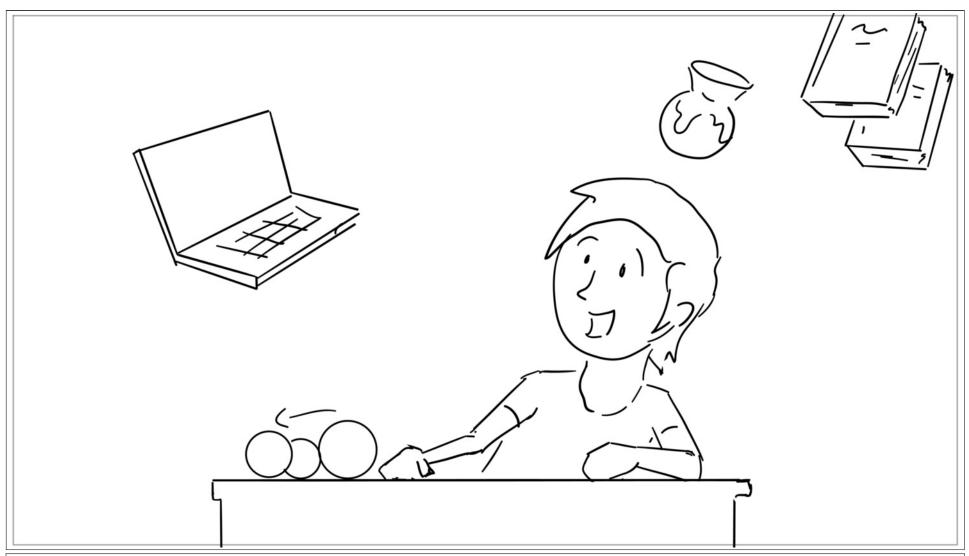
Motivation is so unique to every learner. You know that Parker is passionate about art, coding, and is an avid reader –  $\ensuremath{\mathsf{-}}$ 

Action Notes

A computer, pot, and books should fall in from top screen



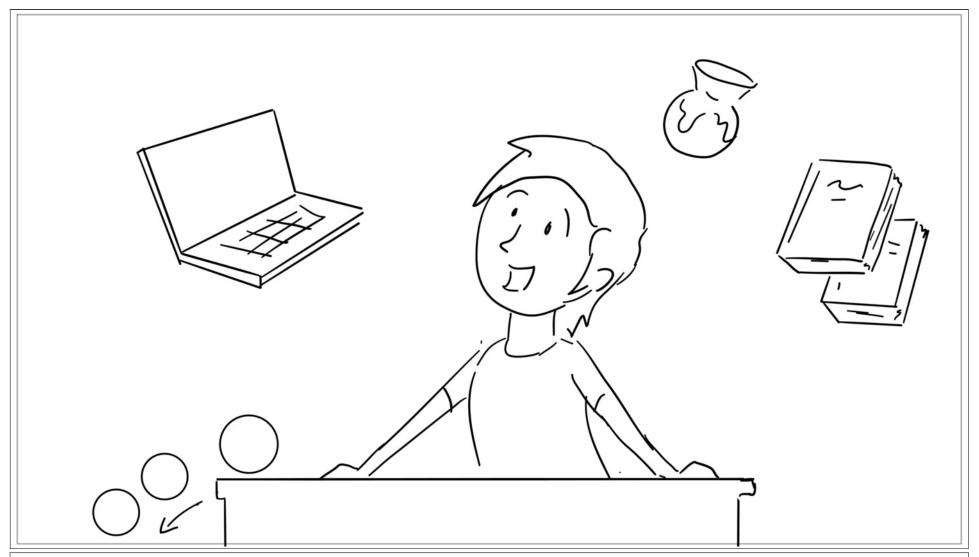
Motivation is so unique to every learner. You know that Parker is passionate about art, coding, and is an avid reader -



Motivation is so unique to every learner. You know that Parker is passionate about art, coding, and is an avid reader -

Action Notes

Balls on desk, roll off screen



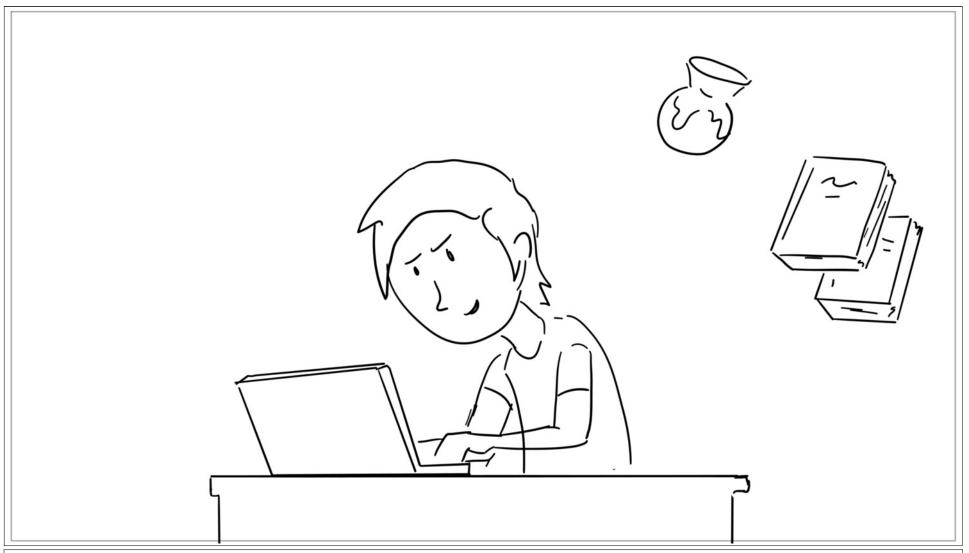
Motivation is so unique to every learner. You know that Parker is passionate about art, coding, and is an avid reader -



Motivation is so unique to every learner. You know that Parker is passionate about art, coding, and is an avid reader –  $\ensuremath{\mathsf{-}}$ 

Action Notes

Parker grabs the computer, and starts typing



Motivation is so unique to every learner. You know that Parker is passionate about art, coding, and is an avid reader -



she just isn't motivated by this task. What can you do to help her?

Action Notes

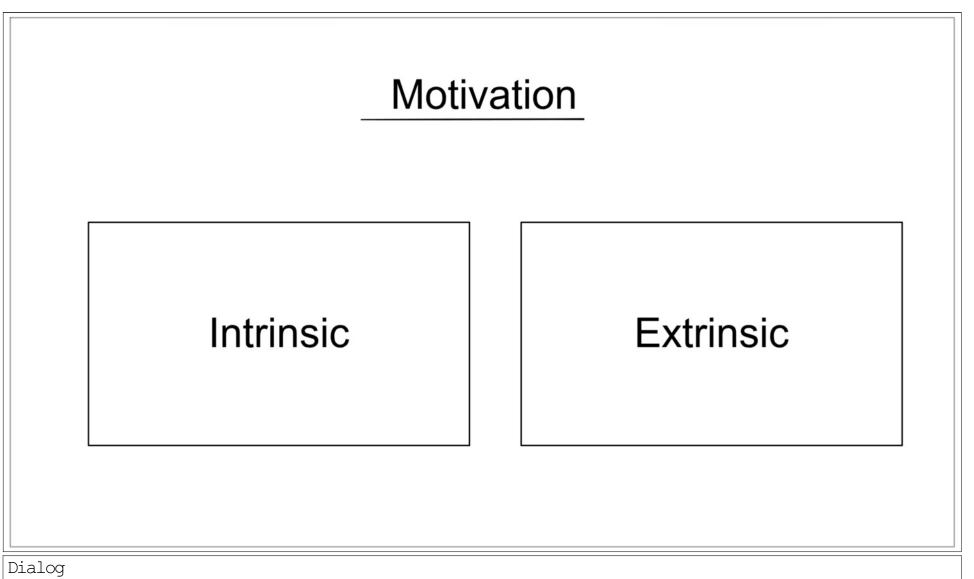
Computer, pot, and books poof away in a cloud of smoke



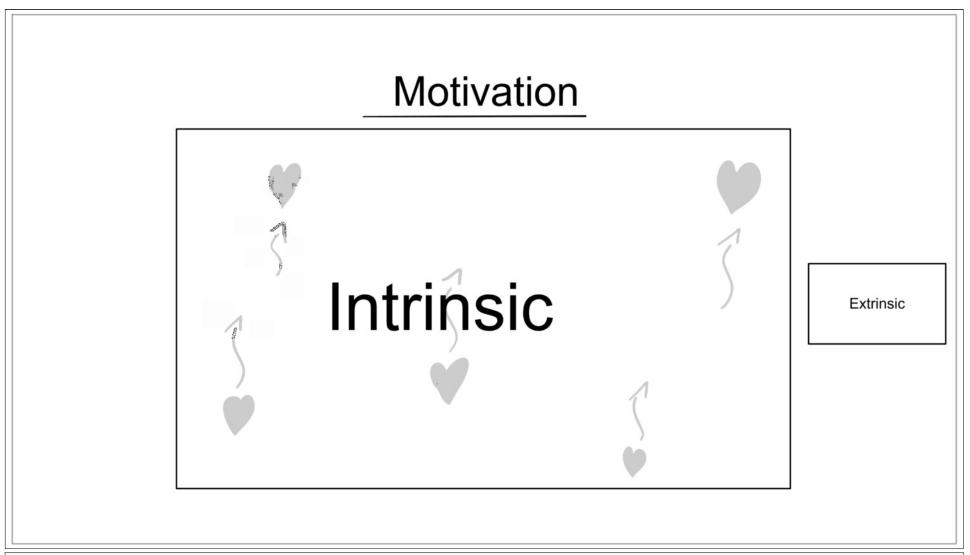
she just isn't motivated by this task. What can you do to help her?

Action Notes

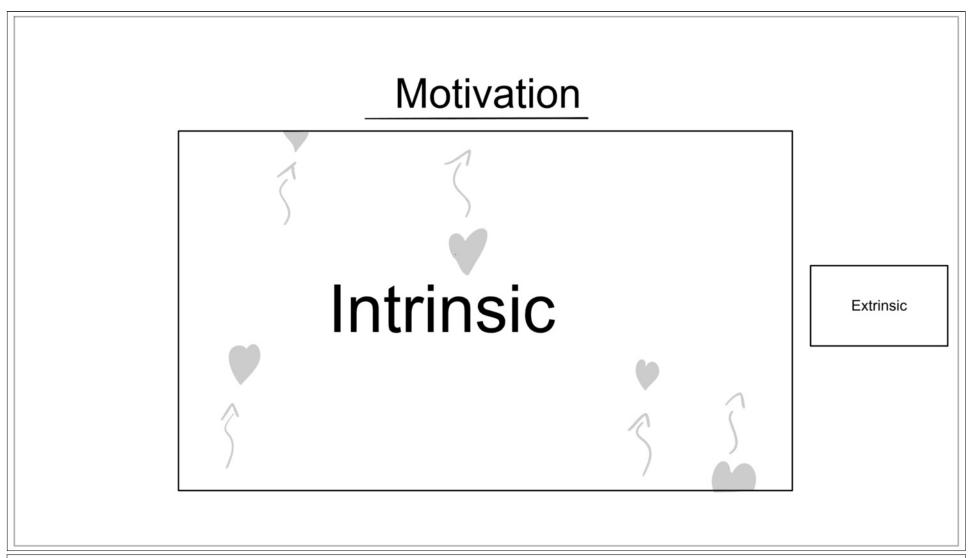
Balls reappear on desk



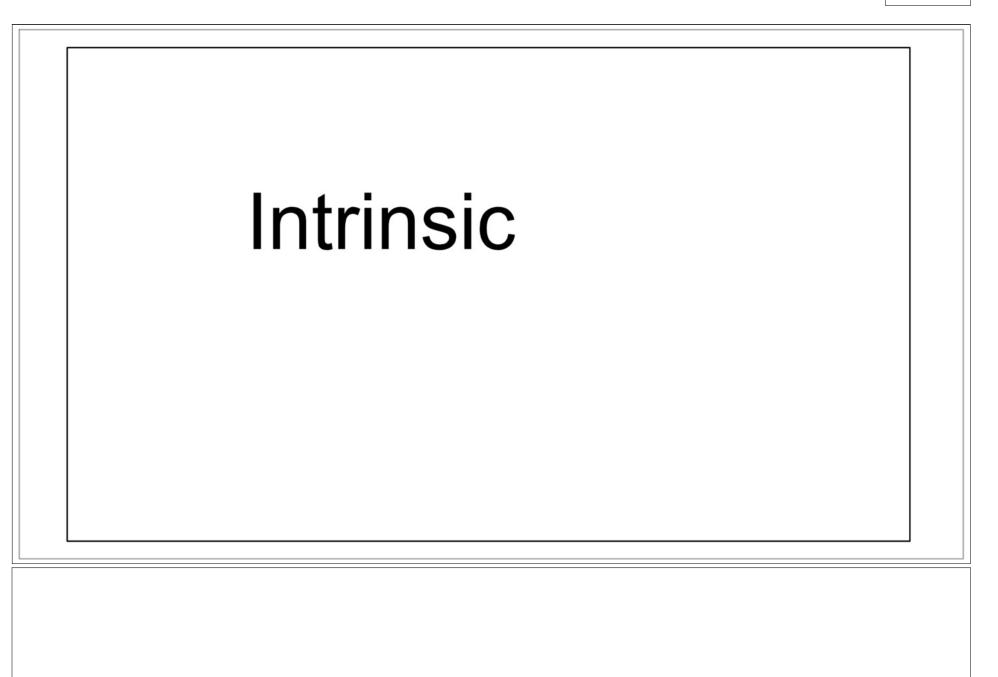
Motivation is generally understood as intrinsic or extrinsic.



Intrinsic motivation is what teachers love to see in action - it comes from deep feelings of interest in an activity.



Intrinsic motivation is what teachers love to see in action - it comes from deep feelings of interest in an activity.



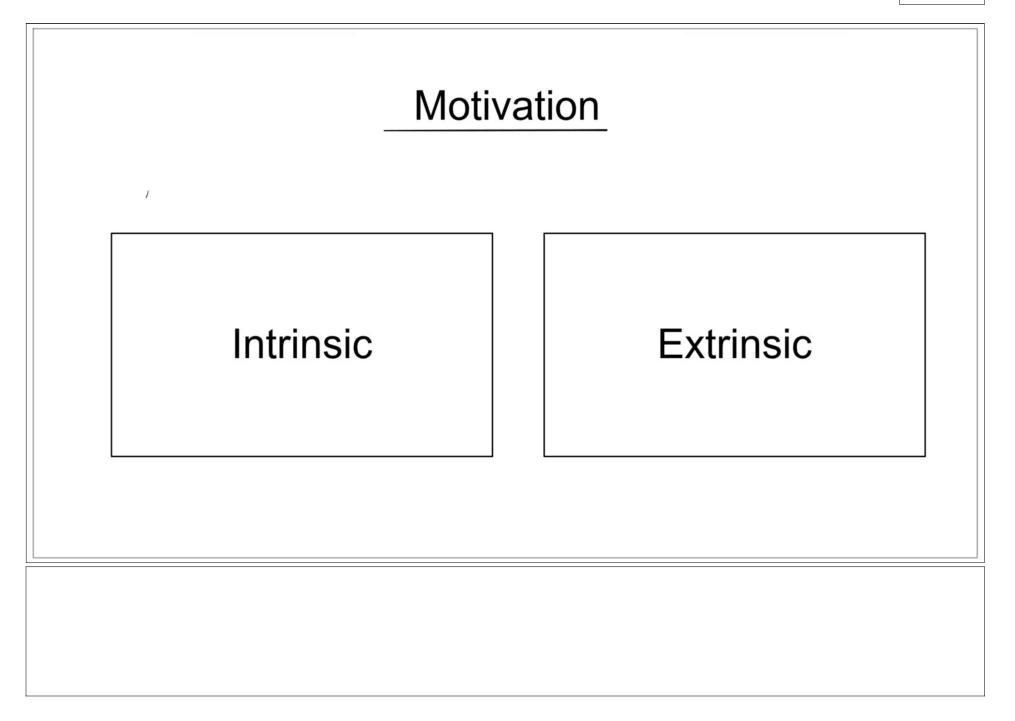
Page 18/51

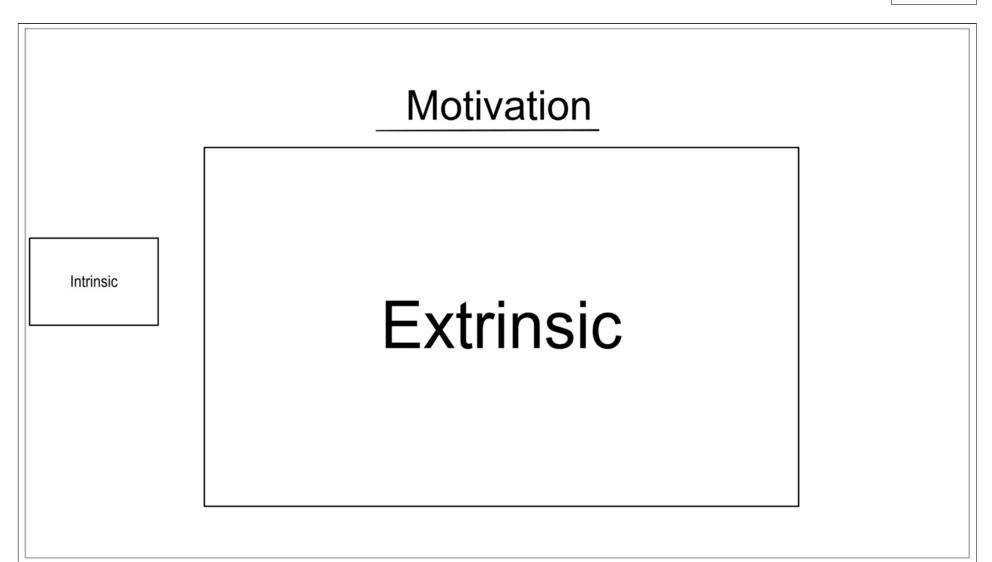


When we're completely absorbed in a challenging but accomplishable task that we've chosen to do, psychologists call that state "flow." Nice, Parker - look at you go!

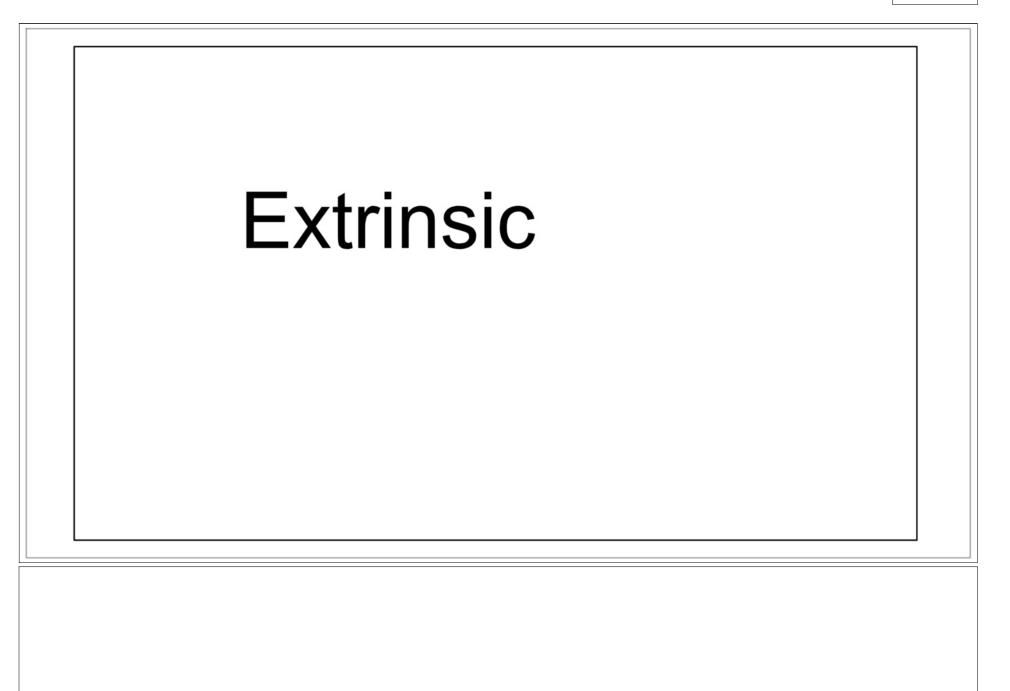
Action Notes

There should be some spinning movement on the pottery wheel





On the other hand, extrinsic motivation comes from an externally imposed need.





These are the tasks that we do not because we're deeply interested in them, but simply because we have to.

Action Notes

Parker scribbling on their homework



As an educator, you might feel pressure to inspire intrinsic motivation in every student, all the time. But while it's important to foster that spark in students when you see it

Action Notes

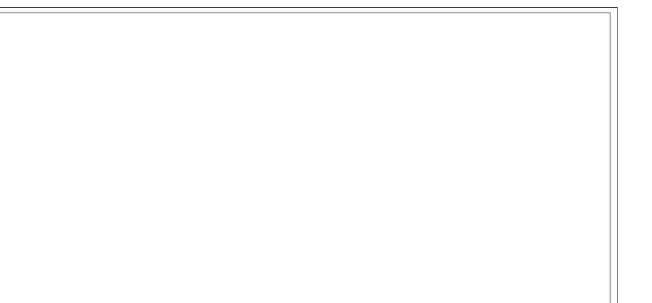
Inspiring motivations items flow in from right screen













it's just as important to help them learn to accomplish a task when the primary motivation is extrinsic.

Action Notes

Inspiration motivation objects disappears

Page 29/51



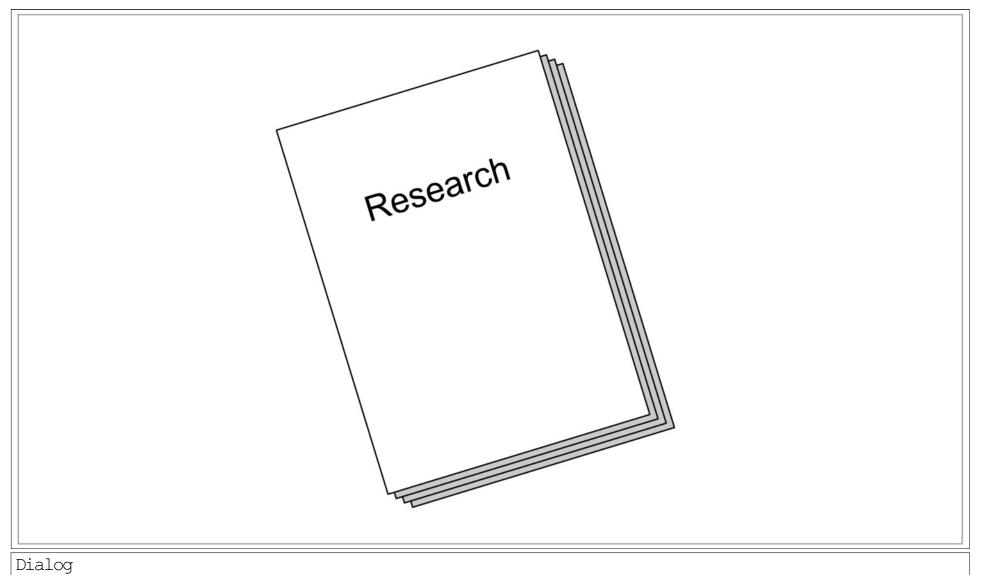
it's just as important to help them learn to accomplish a task when the primary motivation is extrinsic.

Action Notes

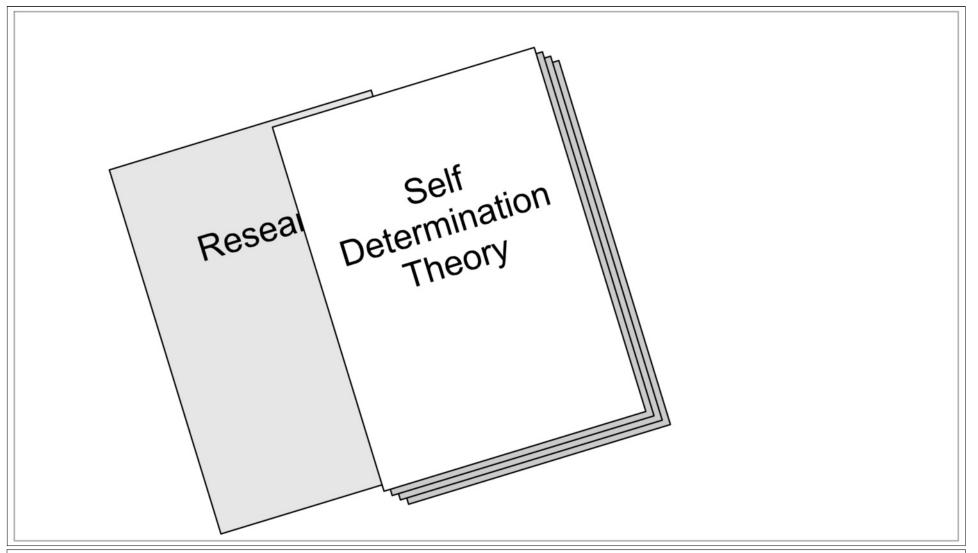
Extrinsic items in boxes fall from top screen, and stack on top of each other



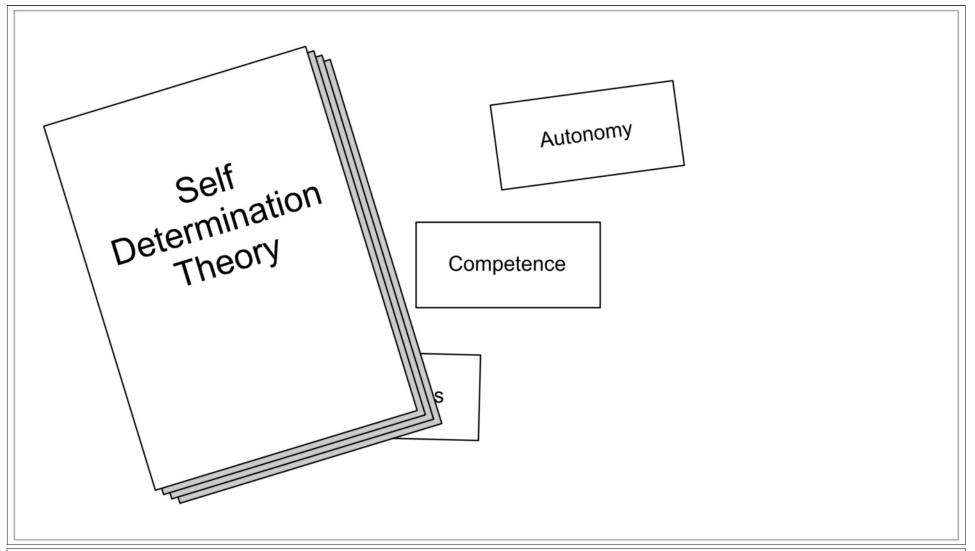
it's just as important to help them learn to accomplish a task when the primary motivation is extrinsic.



According to research in psychology and cognitive science,



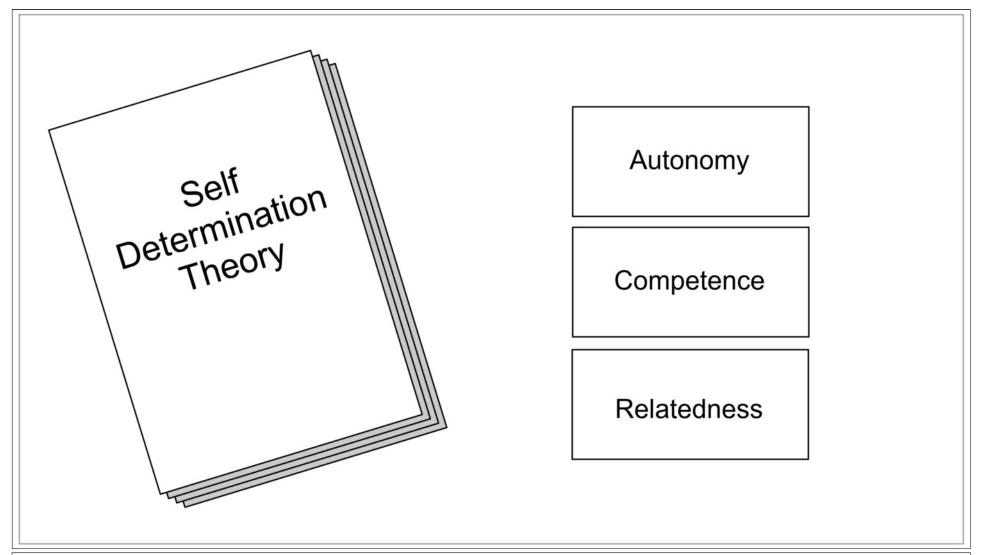
Self Determination Theory can help Parker find the motivation she needs to complete and learn from her solar system model.



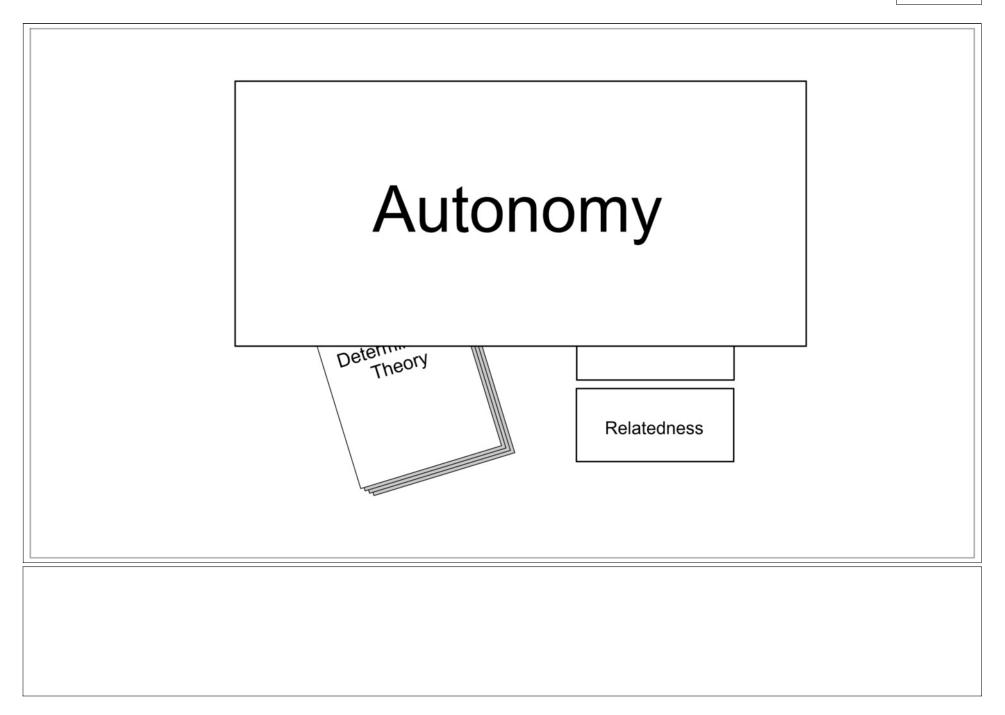
Self Determination Theory states that when three important needs are met, students are better positioned to complete extrinsically motivated tasks.

Action Notes

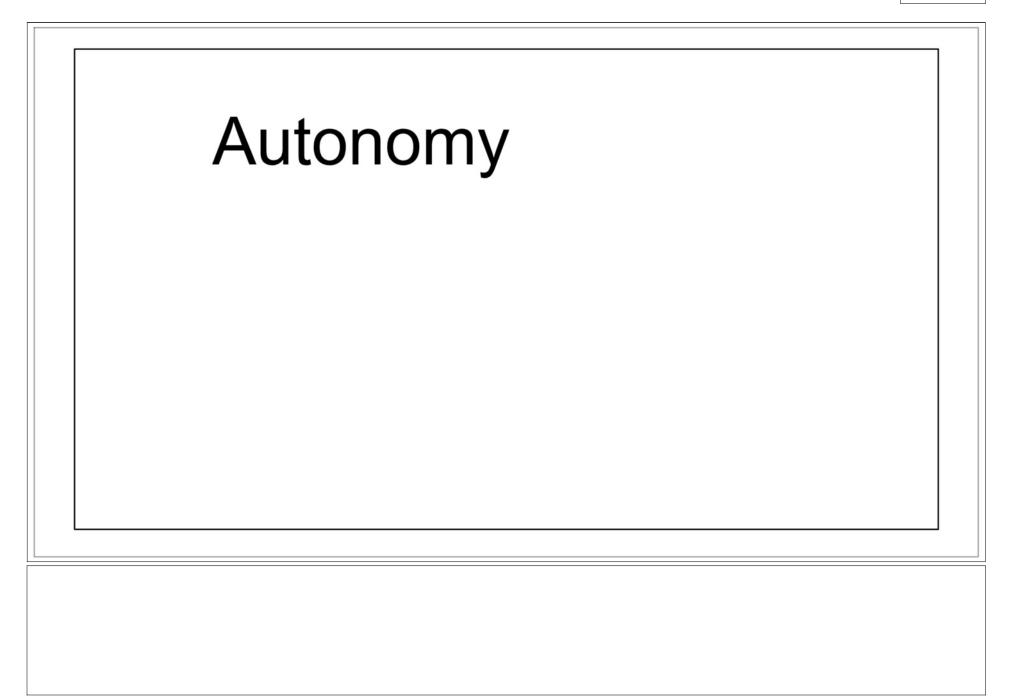
3 note cards come out of the files



Self Determination Theory states that when three important needs are met, students are better positioned to complete extrinsically motivated tasks.







Page 38/51

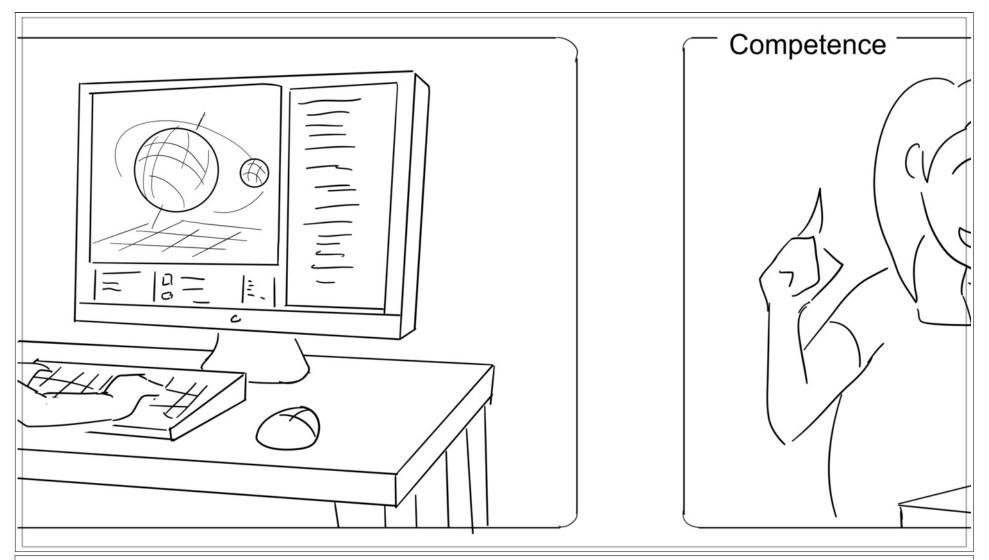
Autonomy	

# Dialog

The first need is autonomy, or choice. Give Parker options for how to explore key concepts and demonstrate her knowledge.

Action Notes

Parker working in a 3D program



Action Notes

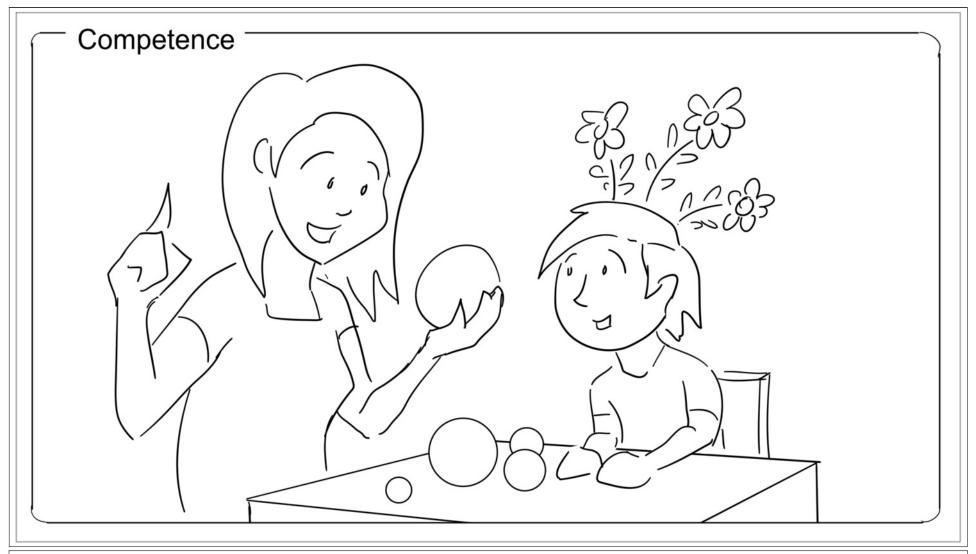
Competence block slides in from the right

Competence
$\sum_{n=1}^{\infty} \sum_{n=1}^{\infty} \sum_{n$

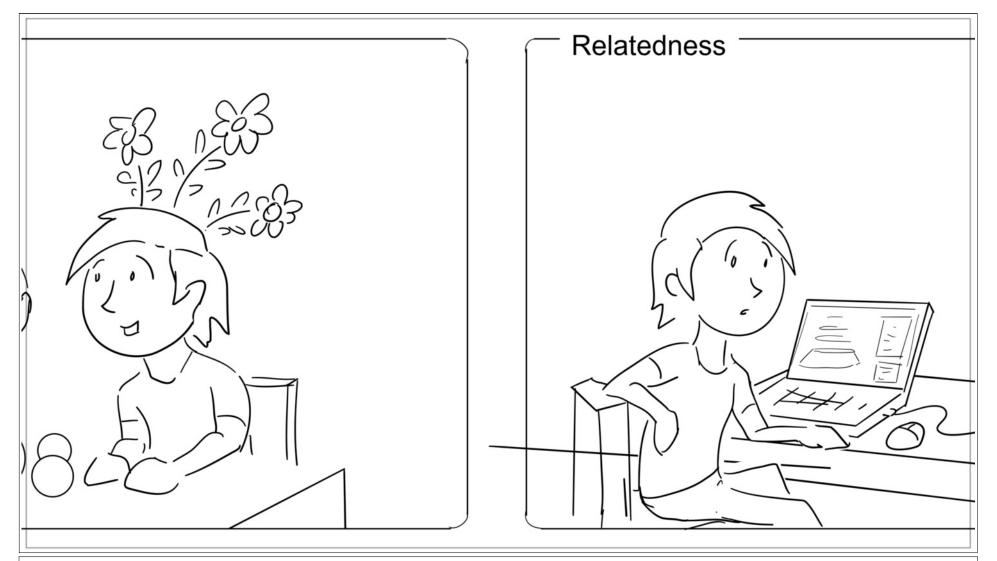
The second is competence. Give Parker the tools to exercise a growth mindset as she takes on the task and help her understand why the skills she's building are so important.

Action Notes

Flowers grow and bloom above Parker's head



The second is competence. Give Parker the tools to exercise a growth mindset as she takes on the task and help her understand why the skills she's building are so important.

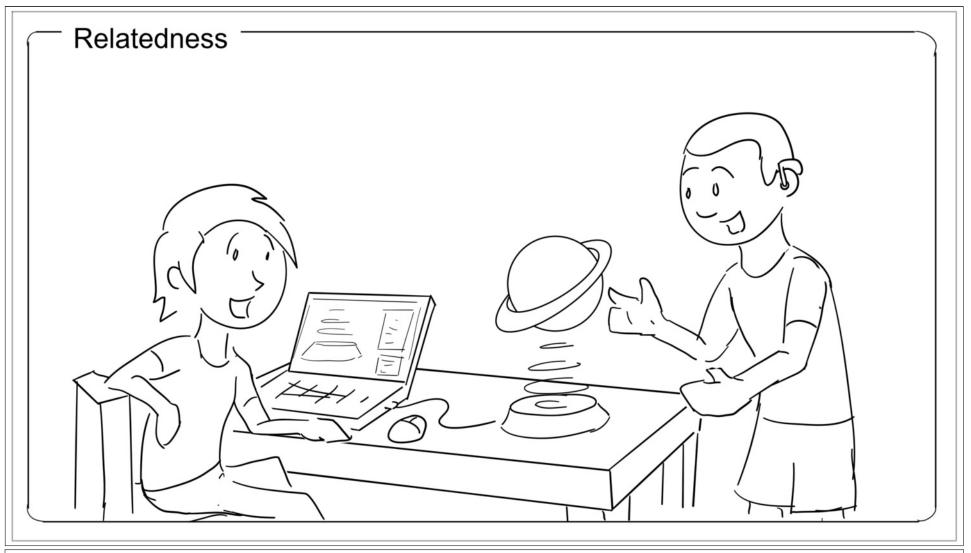


Action Notes

Relatedness block slides in from the right



The third is relatedness, or a sense of belonging. Give Parker plenty of opportunities to collaborate and share ideas with her peers, or even bring her work into a real-world context!



The third is relatedness, or a sense of belonging. Give Parker plenty of opportunities to collaborate and share ideas with her peers, or even bring her work into a real-world context!

Page 45/51

Relatedness	7
Contraction of the second of t	

#### Dialog

The third is relatedness, or a sense of belonging. Give Parker plenty of opportunities to collaborate and share ideas with her peers, or even bring her work into a real-world context!

Action Notes

Science show display



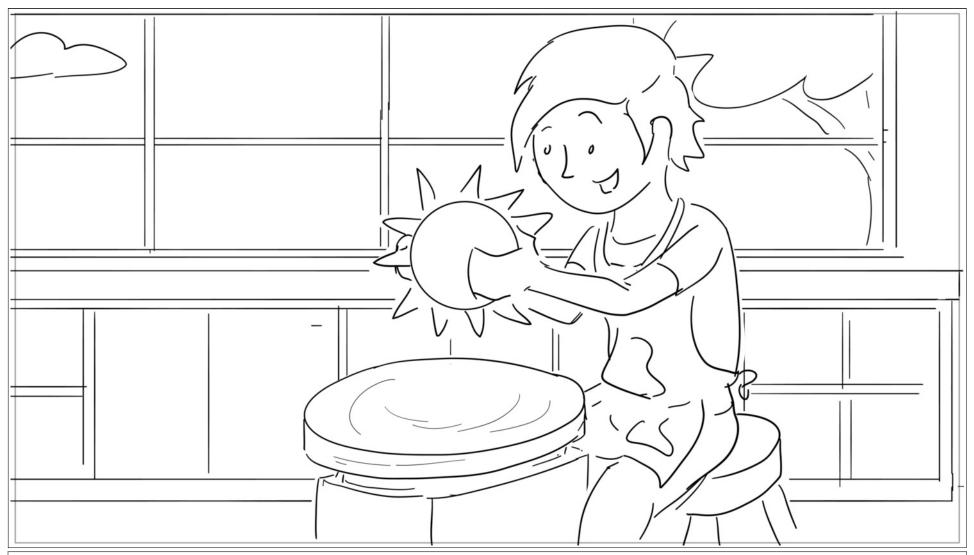


When these needs are met, Parker will feel ownership of her learning, or agency. Even if she doesn't become the next woman on the moon, the content knowledge and skills you've fostered are sure to carry her on the path to achieving her dreams.

# Action Notes

There should be some spinning movement on the pottery wheel

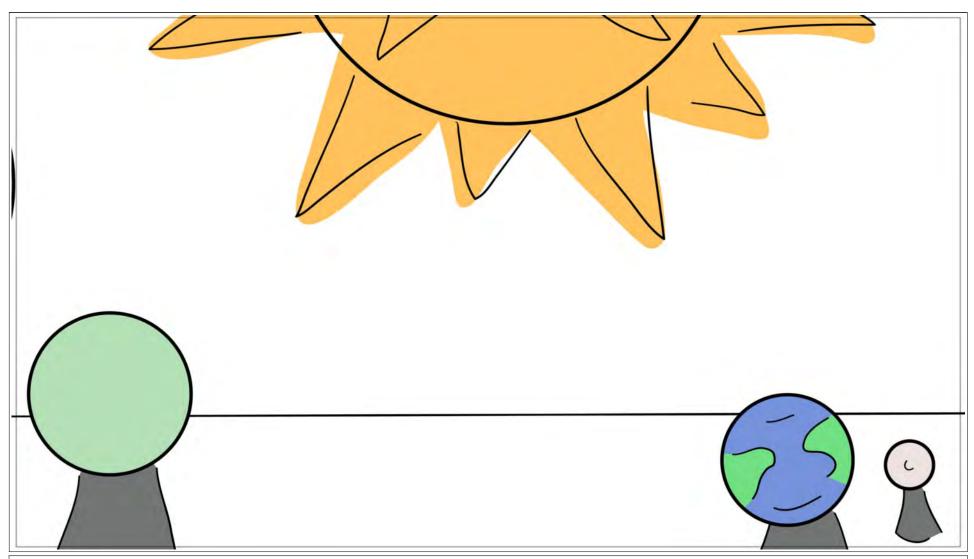




When these needs are met, Parker will feel ownership of her learning, or agency. Even if she doesn't become the next woman on the moon, the content knowledge and skills you've fostered are sure to carry her on the path to achieving her dreams.

Action Notes

Parker creates a sun

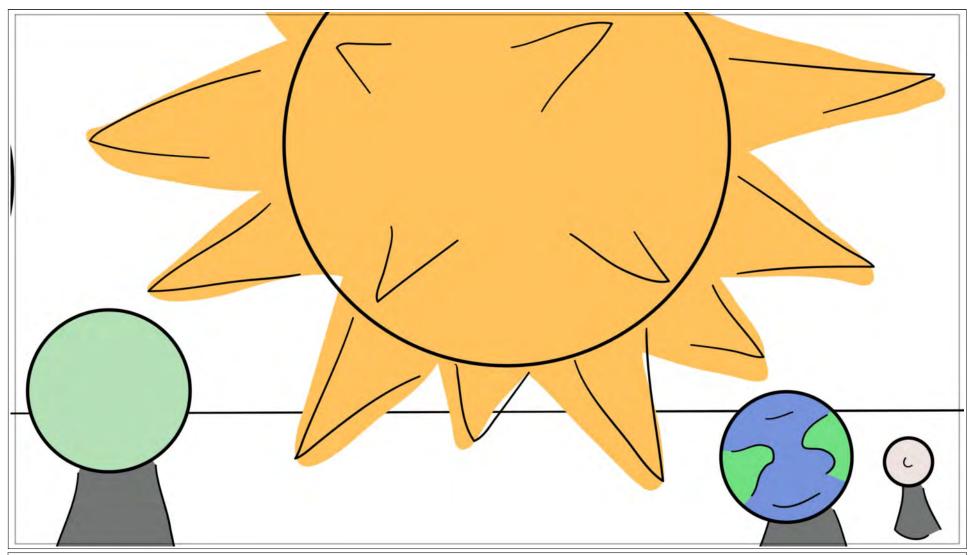


When these needs are met, Parker will feel ownership of her learning, or agency. Even if she doesn't become the next woman on the moon, the content knowledge and skills you've fostered are sure to carry her on the path to achieving her dreams.

# Action Notes

Sun is placed down on a table



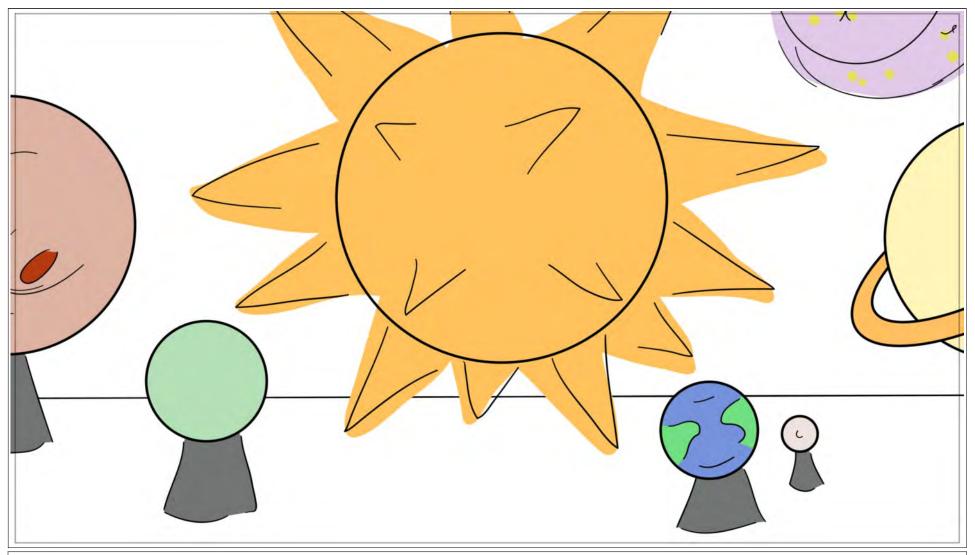


When these needs are met, Parker will feel ownership of her learning, or agency. Even if she doesn't become the next woman on the moon, the content knowledge and skills you've fostered are sure to carry her on the path to achieving her dreams.

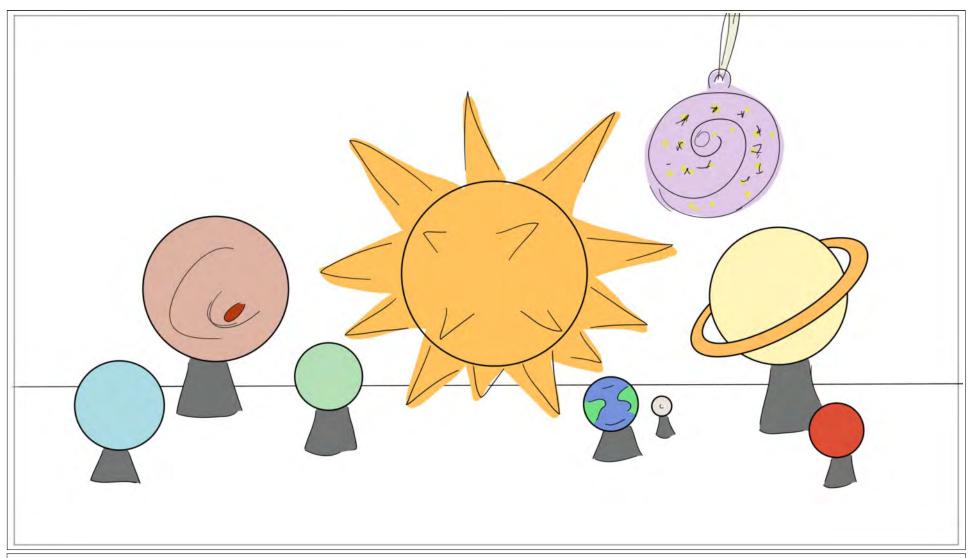
# Action Notes

Slow pan out to see all the planets





When these needs are met, Parker will feel ownership of her learning, or agency. Even if she doesn't become the next woman on the moon, the content knowledge and skills you've fostered are sure to carry her on the path to achieving her dreams.



When these needs are met, Parker will feel ownership of her learning, or agency. Even if she doesn't become the next woman on the moon, the content knowledge and skills you've fostered are sure to carry her on the path to achieving her dreams.