

# Supporting Teen Sleep: Science, Strategies, and Snoozify.



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# Outline



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Task 1: Brainstorm barriers to sleep (10 mins)



Overview of the mechanisms and implications (5 mins)



Overview of our solution (10 mins)



Task 2: Feedback on Snoozify (10 mins)



Task 3: Brainstorm techniques to battle sleepiness in the classroom (10 mins)

# The Problem



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- Over **50% of teenagers** sleep for less than the 8–10-hour recommendation.
- Poor **sleep quality** and increased **sleepiness** are also common.
- **Huge problem** for learning, memory, attention, well-being, and physical health.

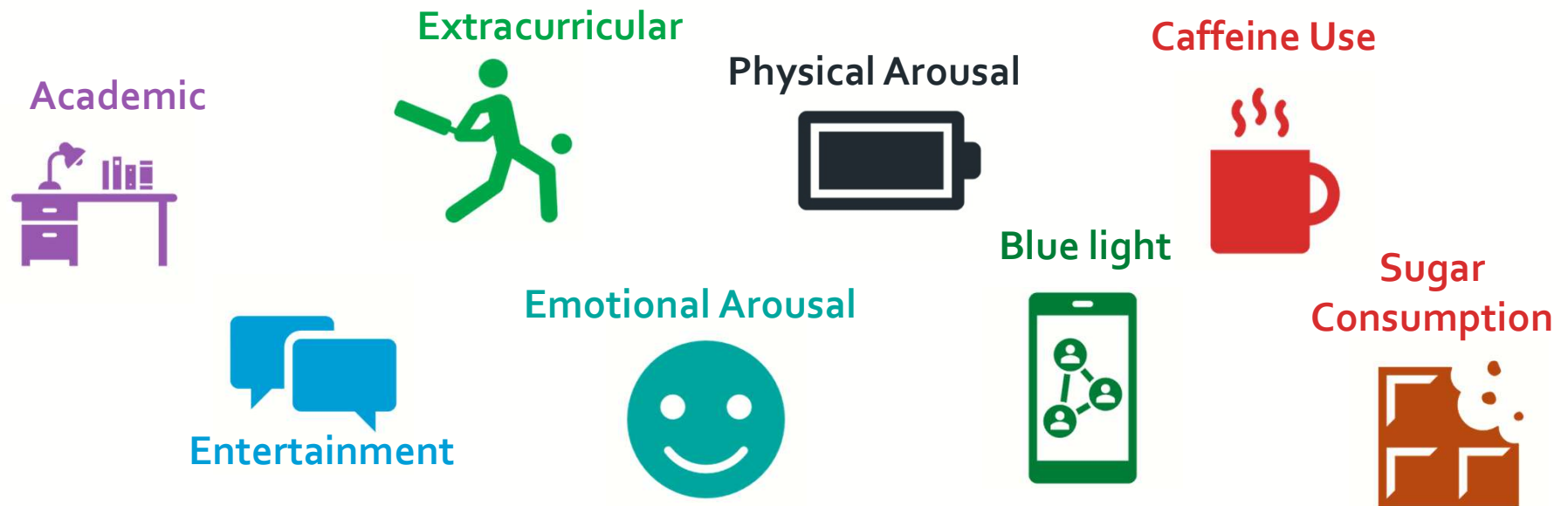
Why do you think teenagers struggle to sleep?

# The Problem



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- A multitude of **biological and behavioural** factors at play here:



- Onset of puberty = **delay to body clock:**



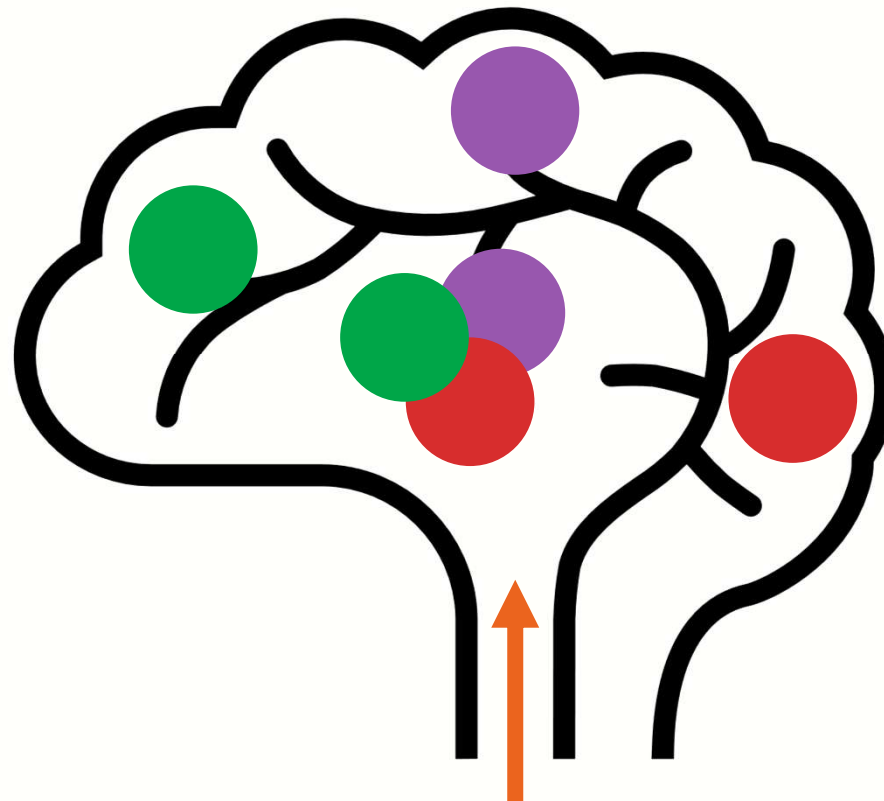
# The Problem



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- Sleep plays an important role in **memory formation**.

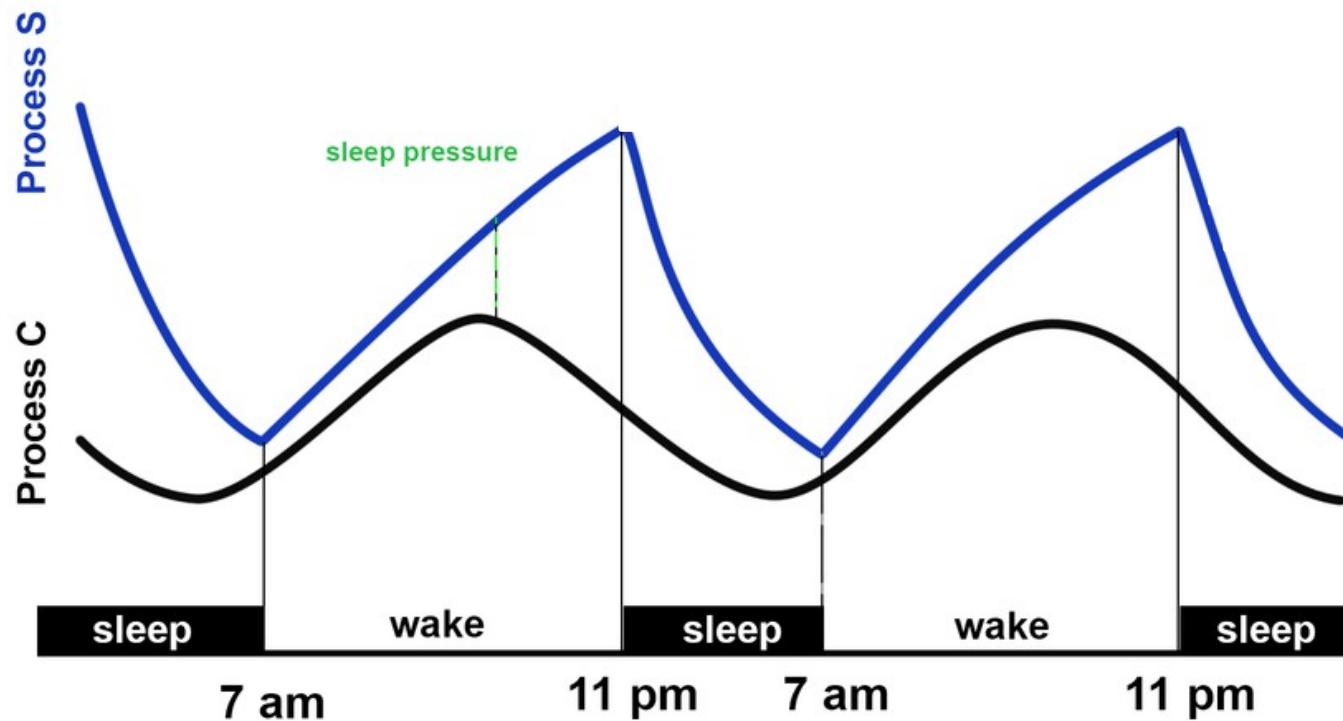
**Sleep Before Learning Consolidation**



## Two-process model of sleep regulation (Borbely, 1982)

Sleep pressure  
(increases during wake)

Circadian rhythm  
(synchronised with light levels)

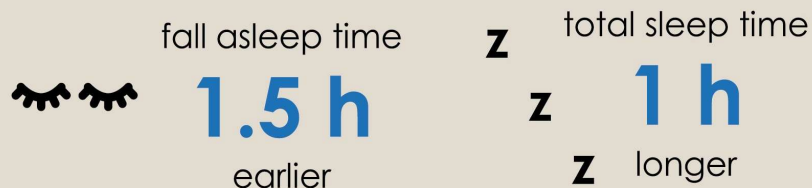
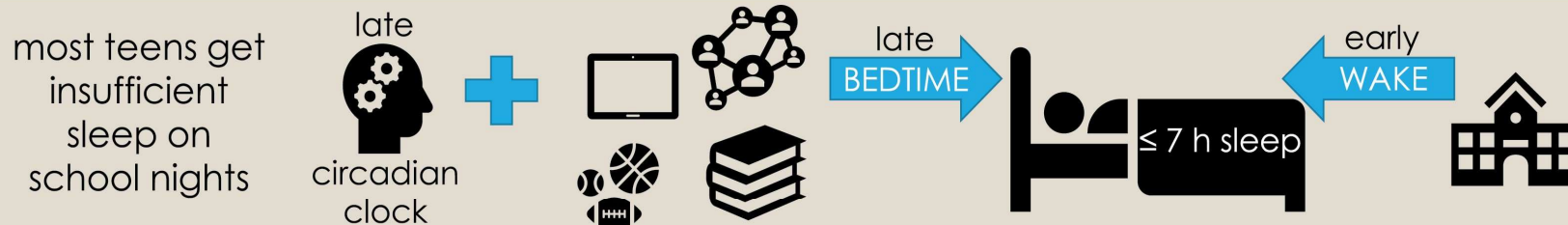


# Example intervention



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Extending weeknight sleep of delayed adolescents  
using weekend morning bright light and evening time management



teens with **late circadian clocks**  
advanced the most – up to ~2 h earlier

teens with **early circadian clocks**  
only needed evening routine change  
& early bedtimes

+ melatonin onset time 1 hour  
earlier than before intervention

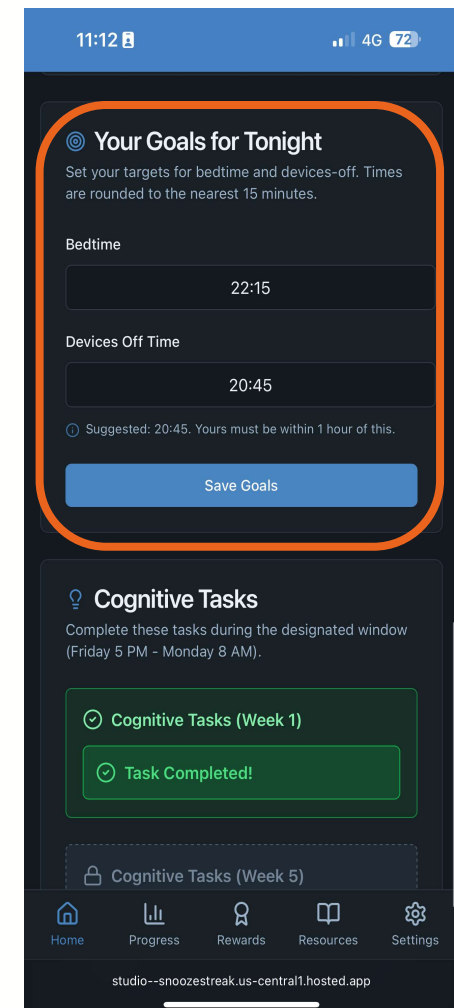
# The Solution? Snoozify.



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## Goals

- User-guided *goal-setting approach*.
- **Overall goal** set at beginning (e.g., to be asleep by 22:15).
- **Daily goals** (e.g., sleep 5 mins earlier than yesterday).
- Mascot encourages **earlier goals** (*modelling*).
- **Notifications** sent 1-2 hours before goal approaching (*environmental restructuring*).





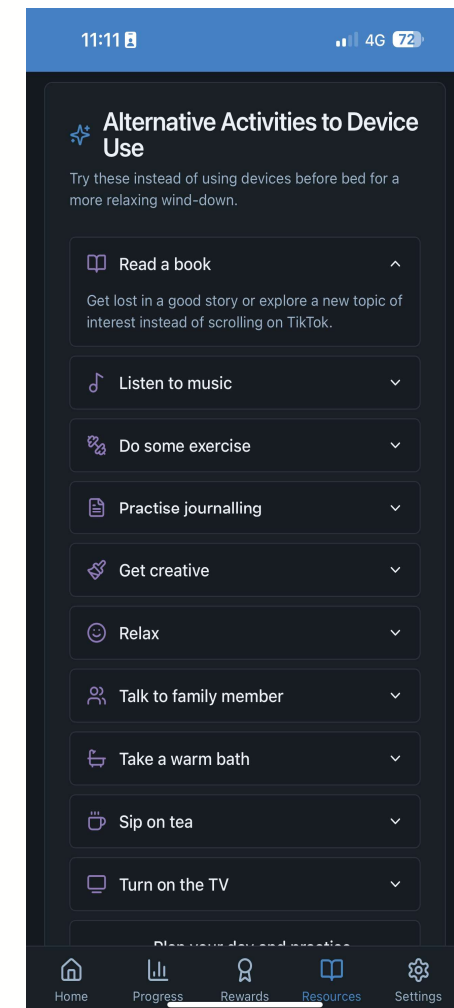
# The Solution? Snoozify.



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## Sleep Education

- **Bitesize information** on sleep hygiene topics (*education/persuasion*).
- Healthier **alternatives** e.g., reading vs. devices, hibiscus lemonade vs. caffeine.
- **Topics** also to include napping and activities in bed based on data from longitudinal study.



# The Solution? Snoozify.



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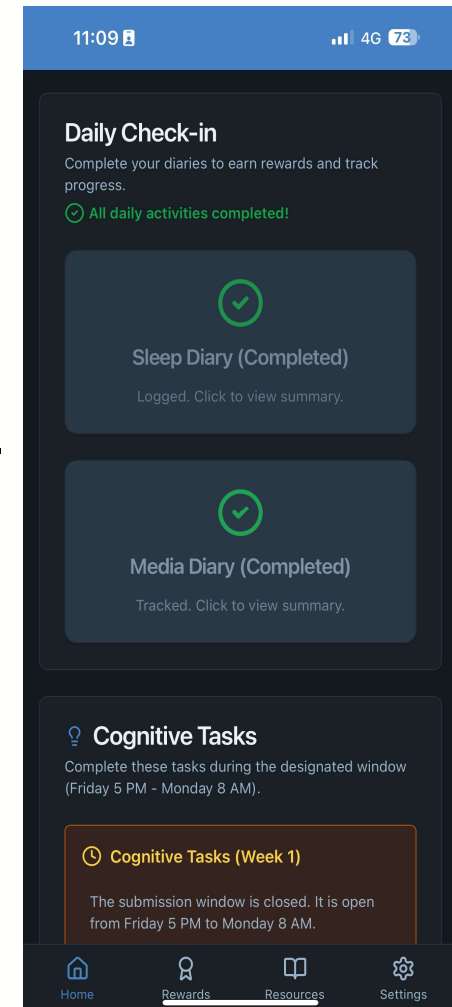
## Monitoring

### Sleep/Media Diaries

- Track behaviour and **semi-personalised feedback** based on alignment with goals.
- Sleep education through feedback (*education/persuasion*).

### Progress Charts

- **Sleep onset** and **devices off times** plotted against goals.
- **Self-monitoring of behaviour** – adjust goals accordingly and visualise progress.



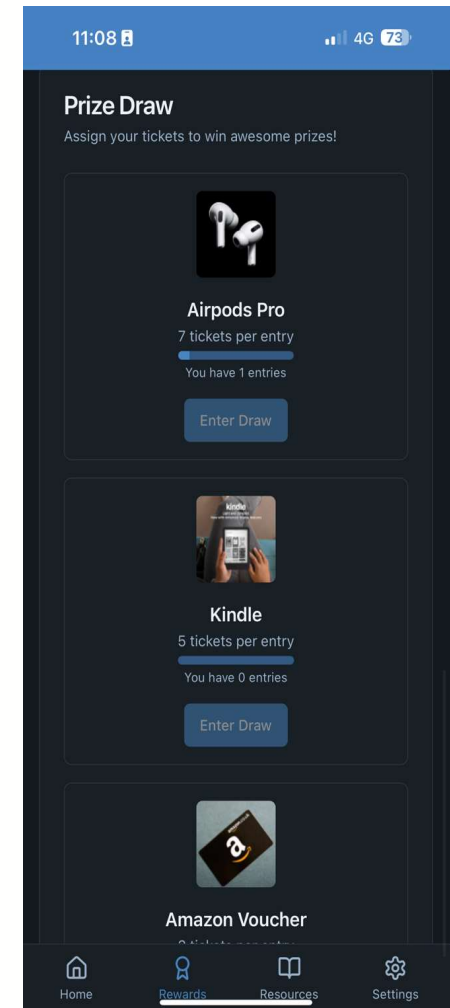
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## Rewards

- Three different types of rewards (*incentivisation*):
  - 1) **Cash** – encourage data entry.
  - 2) **Badges** – encourage behaviour change.
  - 3) **Streaks** – encourage engagement/commitment.



# The Solution? Snoozify.



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- 1) What barriers will teens face in using Snoozify?
- 2) What will work well?
- 3) How might schools support/promote Snoozify?



- 1) What are the visual signs of sleepiness in the classroom?
- 2) What techniques do/could you use to deal with a sleepy student?
- 3) Are there any school-wide policies/routines that are/should be used?

We are recruiting  
schools to take part in  
an experiment to test  
Snoozify! **Register  
interest here:**



Thank you!



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# Summary for Schools



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